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ADA (TRADE NAME) COMPILER VALIDATION SUMMARY REPORT:  
TELESOFT INC TELESOF. (U) INFORMATION SYSTEMS AND  
TECHNOLOGY CENTER W-P AFB OH ADA VALI.. 06 DEC 85

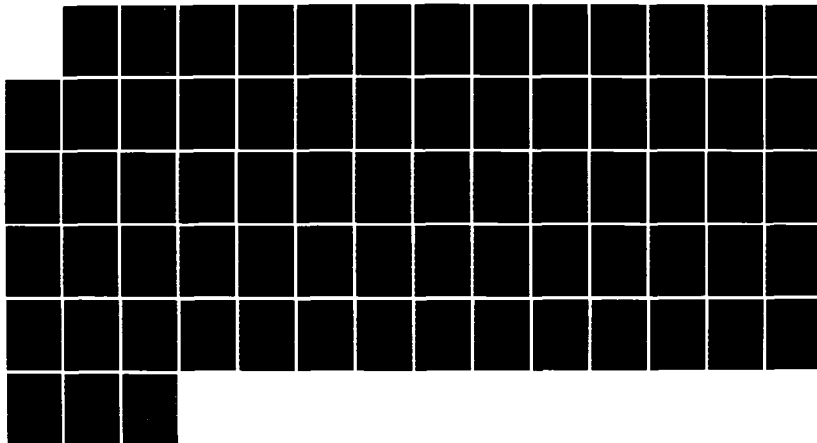
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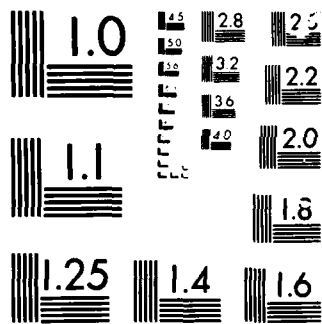
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# ABSTRACT

The Validation Summary Report presents the results and conclusions of testing performed on the TeleSoft Ada Compiler, Version 2.3C3. Standardized tests serve as input to an Ada<sup>®</sup> compiler, producing results which are evaluated by the validation team. This summary briefly states the highlights of the TeleSoft Ada Compiler, Version 2.3C3 validation.

On-site testing was performed 2 December 1985 through 6 December 1985 at TeleSoft, Inc. in San Diego, CA. under the auspices of the Ada Validation Facility (AVF), according to Ada Validation Office policies and procedures. The TeleSoft Ada Compiler, Version 2.3C3 is hosted on Gould CONCEPT/32<sup>®</sup> Model 9750 operating under Gould MPX, Version 3.2. The suite of tests known as the Ada Compiler Validation Capability (ACVC), Version 1.6, was used. The ACVC is used to validate conformance of a compiler to ANSI/MIL-STD-1815A Ada. The purpose of testing is to ensure that a compiler properly implements legal language constructs and that it identifies and rejects illegal language constructs. The testing also identifies behavior that is implementation dependent but permitted by the Ada Standard. Six classes of tests are used. These tests are designed to perform checks at compile time, at link time, or during execution.

The results of validation are summarized in the following table.

RESULT	TEST CLASS						TOTAL
	A	B	C	D	E	L	
Passed	60	772	939	17	8	1	1797
Failed	0	0	0	0	0	0	0
Inapplicable	1	9	287	0	0	2	299
Anomalous	0	0	0	0	0	0	0
Withdrawn	0	19	47	0	0	0	66
TOTAL	61	800	1273	17	8	3	2162

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Ada<sup>®</sup> COMPILER VALIDATION SUMMARY REPORT:  
TeleSoft, Inc.  
TeleSoft\_Ada Compiler, Version 2.3C3  
for the  
Gould CONCEPT/32<sup>®</sup> Model 9750  
under  
MPX, Version 3.2

Completion of On-Site Validation:  
6 December 1985

Prepared By:  
Ada Validation Facility  
Information Systems & Technology Center  
ASD/SIOL  
Wright-Patterson AFB, OH 45433-6503

Prepared For:  
Ada Joint Program Office  
United States Department of Defense  
Washington, D.C.

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Ada<sup>®</sup> Compiler Validation Summary Report:

Compiler Name: TeleSoft\_Ada, Version 2.3C3

Host Computer  
Gould CONCEPT/32<sup>®</sup> Model 9750  
under  
Gould MPX, Version 3.2

Target Computer  
Gould CONCEPT/32 Model 9750  
under  
Gould MPX, Version 3.2

Testing Completed 6 December 1985 Using ACVC 1.6

This report has been reviewed and approved:

*Georgeanne Chitwood*

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## EXECUTIVE SUMMARY

The Validation Summary Report presents the results and conclusions of testing performed on the TeleSoft Ada Compiler, Version 2.3C3. Standardized tests serve as input to an Ada<sup>®</sup> compiler, producing results which are evaluated by the validation team. This summary briefly states the highlights of the TeleSoft Ada Compiler, Version 2.3C3 validation.

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Tests found to contain errors were withdrawn from Version 1.6 of the Ada Compiler Validation Capability (ACVC). When validation was completed, the following tests had been withdrawn:

C35904A-B	B38105B-AB	C45521A-B through C45521Y-B (25 tests)
C48005C-B	C48006B-B	C64103C-B
C64103D-B	C64105E-AB	C64105F-AB
B66001A-B	B67001A-B	B67004A-B
B74103F-B	B74207A-B	C93005A-B
C93005B-B	C93005C-B	C93007B-B
CA1003B-AB	CA1011A-B	CA1108A-B
CA1108B-B	BA2001E-AB	CA2009B-B
CA2009E-B	CA2009F-B	BC1013A-B
BC3204A-B	BC3204B-B	BC3204C-B
BC3204D-B	BC3205A-B	BC3205B-B
BC3205C-B	BC3205D-B	BC3220B-B
BC3405B-B	BC3503A-B	CE2107E-B
CE3603A-B	CE3604A-B	CE3704M-B

Some tests demonstrate that language features are not supported by an implementation. For this implementation the tests determined the following:

- . SHORT\_INTEGER is not supported:

B52004E-AB.DEP	B55B09D-AB.DEP	B86001CR-AB.DEP
C34001D-B.DEP	C55B07B-AB.DEP	

- . LONG\_INTEGER is not supported:

B52004D-AB.DEP	B55B09C-AB.DEP	B86001CS-AB.DEP
C34001E-B.DEP	C55B07A-AB.DEP	

- . SHORT\_FLOAT is not supported:

B86001CP-AB.DEP	C34001F-B.DEP	C35702A-AB.DEP
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- . LONG\_FLOAT is not supported:

B86001CQ-AB.DEP	C34001G-B.DEP	C35702B-AB.DEP
-----------------	---------------	----------------

- . Representation specifications for noncontiguous enumeration representations are not allowed:

C55B16A-AB.DEP

- . No other integer type other than INTEGER, SHORT\_INTEGER, and LONG\_INTEGER is supported:

B86001DT-AB.DEP

- . The package SYSTEM is used by package TEXT\_IO:  
C86001F-B.DEP
- . The 'SIZE clause is not supported:  
C87B62A-B.DEP
- . The 'STORAGE\_SIZE clause is not supported:  
C87B62B-B.DEP
- . The 'SMALL clause is not supported:  
C87B62C-B.DEP
- . Generic subroutine declarations and bodies cannot be compiled in separate compilation units:  
CA1012A-B.DEP
- . Pragma INLINE is not supported for procedures:  
LA3004A-AB.ADA
- . Pragma INLINE is not supported for functions:  
LA3004B-AB.ADA
- . Direct and sequential files can be created and opened in both IN\_FILE and OUT\_FILE modes. Resetting of these files from one mode to another is also supported:  
CE2102D-B.ADA CE2102E-B.ADA CE2102F-B.ADA
- . RESET and DELETE are supported for sequential and direct I/O:  
CE2102G-B.ADA
- . Dynamic creation and deletion of files are allowed:  
CE2106A-B.ADA CE3110A-B.ADA
- . No more than one internal file can be associated with the same external file:  
CE2107A-B.ADA CE2107B-B.ADA CE2107C-B.ADA  
CE2107D-B.ADA CE2111D-B.ADA CE3111A-B.ADA  
CE3111B-B.ADA CE3111C-B.ADA CE3111D-B.ADA  
CE3111E-B.ADA CE3114B-B.ADA

- . Instantiation of package SEQUENTIAL\_IO with unconstrained array types is not allowed:

CE2201D-B.DEP

- . Instantiation of package SEQUENTIAL\_IO with unconstrained record types with discriminants is not allowed:

CE2201E-B.DEP

- . Dynamic creation and resetting of files are supported:

CE2210A-B.ADA

- . Instantiation of package DIRECT\_IO with unconstrained array types and unconstrained types with discriminants is not supported:

CE2401D-B.DEP

- . Illegal filenames can exist:

CE2102C-B.TST

ACVC Version 1.6 was taken on-site via magnetic tape to TeleSoft, Inc. in San Diego, CA. The tape was loaded, and all tests, except the withdrawn tests and any executable tests which make use of a floating-point precision greater than SYSTEM.MAX\_DIGITS, were compiled on a Gould CONCEPT/32 Model 9750. Class A, C, D, and E tests were executed on a Gould CONCEPT/32 Model 9750.

On completion of testing, all results were analyzed for failed Class A, C, D, or E programs, and all Class B and L compilation results were individually analyzed.

The ACVC, Version 1.6, contains 2162 tests of which 1797 were applicable to TeleSoft Ada, Version 2.3C3. No anomalies were found in the testing of this compiler. Testing demonstrated that all applicable tests were passed by this compiler and conformed to the Ada Standard. The AVF concluded that the results show acceptable compliance to ANSI/MIL-STD-1815A Ada.

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## CHAPTER 1

### INTRODUCTION

The Validation Summary Report describes how an Ada compiler conforms to the language standard. This report explains all technical terms used within it and thoroughly reports the Ada Compiler Validation Capability (ACVC) test results. Ada compilers must be written according to the language specification as given in the ANSI/MIL-STD-1815A Ada. All implementation-defined features must be included for the compiler to conform to the Standard. Following the guidelines of the Standard ensures continuity between compilers. That is, the entire Standard must be implemented, and nothing can be implemented that is not in the Standard.

Even though all validated Ada compilers conform to the Standard, it must be understood that some differences do exist between implementations. ANSI/MIL-STD-1815A permits some implementation dependencies--e.g., the maximum length of identifiers, the maximum values of integer types, etc. These implementation-dependent features limit the portability of programs between compilers. Other differences between compilers are due to limitations imposed on a compiler by the operating system and by the hardware. All of these dependencies are given in the report.

Validation Summary Reports are written according to a standardized format. Compiler users can, therefore, more easily compare the reports from several compilers when selecting a compiler for a given task. The validation report can be completed mostly from the test results produced during validation testing. Additional testing information is given at the end of the report and states problems and details which are unique for a specific compiler. The format of the validation report limits variance between reports, enhances readability of the report, and accelerates report readiness.

## INTRODUCTION

### 1.1 PURPOSE OF THIS VALIDATION SUMMARY REPORT

The Validation Summary Report documents the results of the testing performed on an Ada compiler. Testing was carried out for the following purposes:

- . To identify any language constructs supported by the translator that do not conform to the Ada Standard
- . To identify any unsupported language constructs required by the Ada Standard
- . To describe the implementation-dependent behavior allowed by the Ada Standard

Testing of this compiler was conducted by SofTech, Inc. under the supervision of the Ada Validation Facility according to policies and procedures established by the Ada Validation Office (AVO). Testing was conducted from 2 December 1985 through 6 December 1985 at TeleSoft, Inc. in San Diego, CA.

### 1.2 USE OF THIS VALIDATION SUMMARY REPORT

Consistent with the national laws of the originating country, the Ada Validation Office may make full and free public disclosure of this report. In the United States, this is provided in accordance with the "Freedom of Information Act" (5 U.S.C. #552). The results of this validation apply only to the computers, operating systems, and compiler versions identified in this report.

The organizations represented on the signature page of this report do not represent or warrant that any statement or statements set forth in this report are accurate or complete, or that the subject compiler has no nonconformances to the Ada Standard other than those presented. This report is not intended for the purpose of publicizing the findings summarized herein.

Questions regarding this report or the validation tests should be directed to:

Ada Validation Office  
Institute for Defense Analyses  
1801 N. Beauregard  
Alexandria VA 22311

and to:

Ada Validation Facility  
Information Systems & Technology Center  
ASD/SIOL  
Wright-Patterson AFB, OH 45433-6503

## 1.3 REFERENCES

1. Reference Manual for the Ada Programming Language, ANSI/MIL-STD-1815A, Feb 1983.
2. Ada Validation Organization: Policies and Procedures, Mitre Corporation, June 1982, PB 83-110601.
3. Ada Compiler Validation Capability Implementers' Guide, SofTech, Inc., Dec 1984.

## 1.4 DEFINITION OF TERMS

Anomaly	A test result that, given pre-validation analysis, is not expected during formal validation but is judged allowable under the circumstances.
ACVC	The Ada Compiler Validation Capability. A set of programs that evaluates the conformance of a compiler to the Ada language specification, ANSI/MIL-STD-1815A.
Ada Standard	ANSI/MIL-STD-1815A, February 1983.
Applicant	The agency requesting validation.
AVF	The Ada Validation Facility. In the context of this report, the AVF is responsible for conducting compiler validations according to established policies and procedures.
AVO	The Ada Validation Office. In the context of this report, the AVO is responsible for setting policies and procedures for compiler validations.
Compiler	A processor for the Ada language. In the context of this report, a compiler is any language processor, including cross-compilers, translators, and interpreters.
Failed test	A test for which the compiler generates a result that demonstrates nonconformance to the Ada Standard.
Host	The computer on which the compiler resides.
Inapplicable test	A test that uses features of the language that a compiler is not required to support or may legitimately support in a way other than the one expected by the test.
Passed test	A test for which a compiler generates the expected result.

## INTRODUCTION

**Target**            The computer for which a compiler generates code.

**Test**             A program that evaluates the conformance of a compiler to a language specification. In the context of this report, the term is used to designate a single ACVC test. The text of a program may be the text of one or more compilations.

**Withdrawn test**    A withdrawn test has an invalid test objective, fails to meet its test objective, or contains illegal use of the language.

### 1.5 CONFIGURATION

The candidate compilation system for this validation was tested under the configuration:

Compiler: TeleSoft\_Ada, Version 2.3C3

Test Suite: Ada Compiler Validation Capability, Version 1.6

Host Computer:

Machine(s):            Gould CONCEPT/32 Model 9750

Operating System:     Gould MPX, Version 3.2

Memory Size:          16.0 Megabytes

Target Computer:

Machine(s):            Gould CONCEPT/32 Model 9750

Operating System:     Gould MPX, Version 3.2

Memory Size:          16.0 Megabytes



## CHAPTER 2

### TEST RESULTS

#### 2.1 ACVC TEST CLASSES

Conformance to ANSI/MIL-STD-1815A is measured using the Ada Compiler Validation Capability (ACVC). The ACVC contains both legal and illegal Ada programs structured into six test classes: A, B, C, D, E, and L. Legal programs are compiled and executed while illegal programs are just compiled. Support packages are used to report the results of the legal programs. A compiler must correctly process each of the tests in the suite and demonstrate conformance to the Ada Standard by either meeting the pass criteria given for the test or by showing that the test is inapplicable to the implementation. Tests that are found to contain errors are withdrawn from the ACVC. Detailed test results are listed in the Appendix D. The results of validation testing are summarized in the following table:

RESULT	TEST CLASS						TOTAL
	A	B	C	D	E	L	
Passed	60	772	939	17	8	1	1797
Failed	0	0	0	0	0	0	0
Inapplicable	1	9	287	0	0	2	299
Anomalous	0	0	0	0	0	0	0
Withdrawn	0	19	47	0	0	0	66
TOTAL	61	800	1273	17	8	3	2162

A total of 1842 tests were processed during this validation attempt. The 66 withdrawn tests in Version 1.6 were not processed, nor were 254 Class C tests that were inapplicable because they use floating point types having digits that exceed the maximum value for the implementation. All other tests were processed.

## TEST RESULTS

Some conventions are followed in the ACVC to ensure that the tests are reasonably portable without modification. For example, the tests make use of only the basic 55 character set, contain lines with a maximum length of 72 characters, use small numeric values, and place features that may not be supported in separate tests. However, some tests contain values that require the test to be customized according to implementation-specific values. The values used for this validation are listed in Appendix B.

### 2.1.1 Class A Tests

Class A tests check that legal Ada programs can be successfully compiled and executed. However, no checks are performed during execution to see if the test objective has been met. For example, a Class A test checks that reserved words of another language (other than those already reserved in the Ada language) are not treated as reserved words by an Ada compiler. A Class A test is passed if no errors are detected at compile time and the program executes to produce a message indicating that it has passed. If a Class A test cannot be compiled and executed because of its size, then the test is split into a set of smaller subtests that can be processed.

The following table shows that all applicable Class A tests passed:

RESULT	CHAPTER												
	2	3	4	5	6	7	8	9	10	11	12	14	TOTAL
Passed	13	6	0	5	2	12	13	3	0	0	0	6	60
Failed	0	0	0	0	0	0	0	0	0	0	0	0	0
Inapplicable	0	0	0	0	0	0	0	0	0	0	0	1	1
Anomalous	0	0	0	0	0	0	0	0	0	0	0	0	0
Withdrawn	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	13	6	0	5	2	12	13	3	0	0	0	7	61

# TEST RESULTS

## 2.1.2 Class B Tests

Class B tests check that a compiler detects illegal language usage. Class B tests are not executable. Each test in this class is compiled and the resulting compilation listing is examined manually to verify that every syntax or semantic error in the test is detected. A Class B test is passed if every illegal construct that it contains is detected by the compiler. If one or more errors are not detected, then a version of the test is created that contains only the undetected errors. The resulting "split" is compiled and examined. The splitting process continues until all errors are detected by the compiler. Splits were required for eleven tests:

B71001E-AB.ADA	B97101E-AB.ADA	BA3008A-B.ADA
B71001K-AB.ADA	BA3006A-B.ADA	BA3008B-B.ADA
B71001Q-AB.ADA	BA3006B-B.ADA	BA3013A-B.ADA
B71001W-AB.ADA	BA3007B-B.ADA	

The following table shows that all applicable Class B tests passed:

RESULT	CHAPTER												
	2	3	4	5	6	7	8	9	10	11	12	14	TOTAL
Passed	35	72	83	109	70	55	47	92	35	8	148	18	772
Failed	0	0	0	0	0	0	0	0	0	0	0	0	0
Inapplicable	0	0	0	4	0	0	5	0	0	0	0	0	9
Anomalous	0	0	0	0	0	0	0	0	0	0	0	0	0
Withdrawn	0	1	0	0	3	2	0	0	1	0	12	0	19
TOTAL	35	73	83	113	73	57	52	92	36	8	160	18	800

## TEST RESULTS

### 2.1.3 Class C Tests

Class C tests check that legal Ada programs can be correctly compiled and executed. Each Class C test is self-checking and produces a PASS/FAIL message indicating the result when it is executed. If a Class C test cannot be compiled because it exceeds the compiler's capacity, then the test is split into smaller subtests until all are compiled and executed.

The following table shows that all applicable Class C tests passed:

RESULT	CHAPTER												
	2	3	4	5	6	7	8	9	10	11	12	14	TOTAL
Passed	19	86	153	115	70	14	93	105	34	20	55	175	939
Failed	0	0	0	0	0	0	0	0	0	0	0	0	0
Inapplicable	23	121	116	4	0	0	4	0	2	0	0	17	287
Anomalous	0	0	0	0	0	0	0	0	0	0	0	0	0
Withdrawn	0	1	27	0	4	0	0	4	7	0	0	4	47
TOTAL	42	208	296	119	74	14	97	109	43	20	55	196	1273

## 2.1.4 Class D Tests

Class D tests check the compilation and execution capacities of a compiler. Since there are no requirements placed on a compiler by the Ada Standard for the number of identifiers permitted in a compilation, the number of units in a library, the number of nested loops in a subprogram body, and so on, a compiler may refuse to compile a Class D test. Each Class D test is self-checking and produces a PASS/FAIL message indicating the result when it is executed. If a Class D test fails to compile because the capacity of the compiler is exceeded, then the test is classified as inapplicable.

The following table shows that all applicable Class D tests passed:

RESULT	CHAPTER												TOTAL
	2	3	4	5	6	7	8	9	10	11	12	14	
Passed	1	0	4	9	3	0	0	0	0	0	0	0	17
Failed	0	0	0	0	0	0	0	0	0	0	0	0	0
Inapplicable	0	0	0	0	0	0	0	0	0	0	0	0	0
Anomalous	0	0	0	0	0	0	0	0	0	0	0	0	0
Withdrawn	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	0	4	9	3	0	0	0	0	0	0	0	17

Capacities measured by the Class D tests are detailed in section 2.4, IMPLEMENTATION CHARACTERISTICS.

## TEST RESULTS

### 2.1.5 Class E Tests

Class E tests provide information about the compiler in those areas in which the Ada Standard permits implementations to differ. Each Class E test is executable and produces messages that indicate how the Ada Standard is interpreted. However, in some cases the Ada Standard permits a compiler to detect a condition either at compile time or at execution time, and thus a Class E test may correctly fail to execute. A Class E test is passed if it fails to compile and appropriate error messages are issued, or if it executes properly and produces a message that it has passed. If a Class E test cannot be compiled and executed because of its size, then the test is split into a set of smaller subtests that can be processed.

The following table shows that all applicable Class E tests passed:

RESULT	CHAPTER												TOTAL
	2	3	4	5	6	7	8	9	10	11	12	14	
Passed	1	3	2	1	0	0	0	0	0	0	0	1	8
Failed	0	0	0	0	0	0	0	0	0	0	0	0	0
Inapplicable	0	0	0	0	0	0	0	0	0	0	0	0	0
Anomalous	0	0	0	0	0	0	0	0	0	0	0	0	0
Withdrawn	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	1	3	2	1	0	0	0	0	0	0	0	1	8

Information obtained from the Class E tests is detailed in section 2.4, IMPLEMENTATION CHARACTERISTICS.

## TEST RESULTS

### 2.1.6 Class L Tests

Class L tests check that incomplete or illegal Ada programs involving multiple, separately compiled units are detected and not allowed to execute. Class L tests are compiled separately and execution is attempted. A Class L test passes if it is rejected at link time and the test does not execute.

The following table shows that all applicable Class L tests passed:

RESULT	CHAPTER												TOTAL
	2	3	4	5	6	7	8	9	10	11	12	14	
Passed	0	0	0	0	0	0	0	0	1	0	0	0	1
Failed	0	0	0	0	0	0	0	0	0	0	0	0	0
Inapplicable	0	0	0	0	0	0	0	0	2	0	0	0	2
Anomalous	0	0	0	0	0	0	0	0	0	0	0	0	0
Withdrawn	0	0	0	0	0	0	0	0	0	0	0	0	0
TOTAL	0	0	0	0	0	0	0	0	3	0	0	0	3

## TEST RESULTS

### 2.1.7 Support Units

Three units (REPORT package, CHECK\_FILE procedure, and VAR\_STRINGS package) support the self-checking features of the executable tests. The REPORT package provides the mechanism by which executable tests report results. It also provides a set of identity functions used to defeat some compiler optimization strategies that cause computations to be made by the target computer instead of by the compiler on the host computer. The CHECK\_FILE procedure is used to check the contents of text files written by some of the Class C tests for chapter 14 of the Ada Standard. The VAR\_STRINGS package defines types and subprograms for manipulating varying-length character strings. The operation of these three units is checked by a set of executable tests. These tests produce messages that are examined manually to verify that the units are operating correctly. If these units are not operating correctly, then the validation is not attempted.

All support units were compiled and were demonstrated to be operating correctly.



## 2.2 WITHDRAWN TESTS

Some tests are withdrawn from the ACVC because they do not conform to the Ada Standard. When testing was performed, the following 66 tests had been withdrawn for the reasons indicated:

- . C35904A-B: The elaborations of the subtype declarations for SFX3 and SFX4 in this test raise `NUMERIC_ERROR` in some implementations. The exception is raised on the conversion of the real literals 2.0 and 5.0 to the base type of `FIX`.
- . B38105B-AB, C48006B-B, B74207A-B, and BC3503A-B: These tests require a specific interpretation of the Reference Manual regarding whether an incomplete type can have discriminant constraints before the full type declaration; this interpretation is not fully supported by the Reference Manual or the Language Maintenance Committee.
- . C45521A-B through C45521Y-B (25 tests): Cases C and I define the model interval for the result too narrowly.
- . C48005C-B: Lines 38 and 63 of this test should check that the value of the designated object is null.
- . C64103C-B: This test should raise `CONSTRAINT_ERROR` during the conversion at line 179.
- . C64103D-B: This test involves an issue of whether `CONSTRAINT_ERROR` or `NUMERIC_ERROR` is to be raised. Because the issue could not be resolved quickly, the test was withdrawn from Version 1.6.
- . C64105E-AB and C64105F-AB: These tests should ensure (in case E) that non-null dimensions of formal and actual parameters belong to both index subtypes (see AI-00313).
- . B66001A-B: This test checks (in section G) that a function without parameters which is equivalent to an enumeration literal in the same declarative region is a redeclaration and as such is forbidden. According to section 8.3, paragraph 17 of the Reference Manual, the explicit declaration of such a function is allowed if an enumeration literal is considered to be an implicitly declared predefined operation. The Reference Manual is not clear on this point. Because the issue could not be resolved quickly, the test was withdrawn from Version 1.6.
- . B67001A-B: This test is missing the "BEGIN NULL; END;" at line 414 needed to complete the block for case H beginning at line 389.

## TEST RESULTS

- . B67004A-B: In this test, the default name for a formal generic equality function should not be allowed to be "/" unless an expanded name is used.
- . B74103F-B: This test depends on whether or not a generic formal type declaration declares a type. Because the issue could not be resolved quickly, the test was withdrawn from Version 1.6.
- . C93005A-B, C93005B-B, and C93005C-B: These tests contain a declaration of an integer variable whose initialization is solely for the purpose of raising an exception. Some compilers will not raise this exception due to allowable optimizations.
- . C93007B-B: This test should check for PROGRAM\_ERROR rather than TASKING\_ERROR (see AI-00149).
- . CA1003B-AB: A compilation that contains an illegal compilation unit may now be rejected as a whole (see AI-00255/05).
- . CA1011A-B: The test objective should be reversed to be consistent with AI-00199.
- . CA1108A-B: A pragma ELABORATE is needed for OTHER\_PKG at line 25.
- . CA1108B-B: A pragma ELABORATE is needed for FIRST\_PKG at line 39 and for LATER\_PKG at line 49.
- . BA2001E-AB: Section 10.2, paragraph 5 of the Reference Manual states, "Simple names of all subunits that have the same ancestor library unit must be distinct identifiers." This test requires that the above conditions be checked when the stub is declared. However, since the Reference Manual uses the term "subunit," it is not clear that the check must be made at the declaration or when the subunit is compiled.
- . CA2009B-B and CA2009E-B: In these tests, the repetition of the main procedure after the subunit body makes the subunit body obsolete. Therefore, an attempt to execute the main procedure will fail.
- . CA2009F-B: The file CA2009F2-B, which is part of this test, is missing from the test suite.
- . BC1013A-B: In this test, the declaration of equality in lines 86 and 87 is illegal because the parameter type T declared in line 11 is not a limited type (see section 6.7, paragraph 4 of the Reference Manual).
- . BC3204A-B, BC3204B-B, BC3204C-B, BC3204D-B, BC3205A-B, BC3205B-B, BC3205C-B, BC3205D-B, and BC3405B-B: Instantiations with types that have default discriminants are legal (see AI-00037).

## TEST RESULTS

- . BC3220B-B: This test assumes that instantiated types may be static. Because the issue could not be resolved quickly, the test was withdrawn from Version 1.6.
- . CE2107E-B: This test has a variable, TEMP\_HAS\_NAME, that should have been initialized to TRUE.
- . CE3603A-B: In this test, the last case is inconsistent with AI-00050. If a string argument is null, no attempt to read is made and END\_ERROR is not raised.
- . CE3604A-B: Cases 5, 8, 9, and 11 in this test are inconsistent with AI-00050. SKIP\_LINE is called only if the end of the output string has not been met.
- . CE3704M-B: A superfluous SKIP\_LINE causes the input and output operations to be out of synchronization.

### 2.3 INAPPLICABLE TESTS

Some tests do not apply to all compilers because they make use of features that a compiler is not required by the Ada Standard to support. Others may depend on the result of another test that is either inapplicable or withdrawn. For this validation attempt, 299 tests were inapplicable for the reasons indicated:

- . 254 tests were not processed because SYSTEM.MAX\_DIGITS was 6. These tests were:

C24113C-B.DEP through C24113Y-B.DEP (23 tests)  
C35705C-B.DEP through C35705Y-B.DEP (23 tests)  
C35706C-B.DEP through C35706Y-B.DEP (23 tests)  
C35707C-B.DEP through C35707Y-B.DEP (23 tests)  
C35708C-B.DEP through C35708Y-B.DEP (23 tests)  
C35802C-B.DEP through C35802Y-B.DEP (23 tests)  
C45241C-B.DEP through C45241Y-B.DEP (23 tests)  
C45321C-B.DEP through C45321Y-B.DEP (23 tests)  
C45421C-B.DEP through C45421Y-B.DEP (23 tests)  
C45424C-B.DEP through C45424Y-B.DEP (23 tests)  
C45621C-B.DEP through C45621Z-B.DEP (24 tests)

- . Five tests were inapplicable because this implementation does not support SHORT\_INTEGER:

C34001D-B.DEP B55B09D-AB.DEP B86001CR-AB.DEP  
B52004E-AB.DEP C55B07B-AB.DEP

## TEST RESULTS

- . Five tests were inapplicable because this implementation does not support LONG\_INTEGER:

C34001E-B.DEP B55B09C-AB.DEP B86001CS-AB.DEP  
B52004D-AB.DEP C55B07A-AB.DEP

- . Three tests were inapplicable because this implementation does not support SHORT\_FLOAT:

C34001F-B.DEP C35702A-AB.DEP B86001CP-AB.DEP

- . Three tests were inapplicable because this implementation does not support LONG\_FLOAT:

C34001G-B.DEP C35702B-AB.DEP B86001CQ-AB.DEP

- . Test C52008B-B.ADA makes use of an unconstrained discriminated type whose size exceeds the maximum object size supported by the implementation. NUMERIC\_ERROR is raised during execution when the subtype is elaborated.
- . Test C55B16A-AB.DEP makes use of an enumeration representation clause that contains noncontiguous values. Representation specifications for noncontiguous enumeration representation are not supported by this compiler.
- . Test B86001DT.AB-TST requires a predefined numeric type other than those defined by the Ada language in package STANDARD. There is no such type for this implementation.
- . Three tests were inapplicable because this implementation does not support length clauses to specify the collection size for an access type.

C87B62A-B.DEP C87B62B-B.DEP C87B62C-B.DEP

- . Thirteen tests were inapplicable because this implementation does not support more than one internal file being associated with the same external file.

CE2107A-B.ADA CE2107B-B.ADA CE2107C-B.ADA  
CE2107D-B.ADA CE2110B-B.ADA CE2111D-B.ADA  
CE3111A-B.ADA CE3111B-B.ADA CE3111C-B.ADA  
CE3111D-B.ADA CE3111E-B.ADA CE3114B-B.ADA  
CE3115A-B.ADA

- . Test CE3605A-B.ADA performs character output that exceeds the line length limit of the target computer's I/O subsystem. This is an acceptable implementation limitation.

## TEST RESULTS

- . Test C86001F-B.DEP redefines package SYSTEM, but TEXT\_IO is made obsolete by this new definition in this implementation.
- . Test CA1012A-B.DEP compiles generic subroutine declarations and bodies in separate compilation units. Separate compilation of generic specifications and bodies is not supported by this compiler.
- . Test CA2009C-B.DEP compile generic subunits in separate compilation files. Separate compilation of generic specifications and bodies is not supported by this compiler.
- . Four tests were inapplicable because this implementation does not support instantiation of package SEQUENTIAL\_IO with unconstrained array types.

AE2101C-B.DEP    CE2201D-B.DEP    CE2201E-B.DEP  
CE2401D-B.DEP

- . Test LA3004A-AB.ADA uses pragma INLINE for procedures which is not supported by this compiler.
- . Test LA3004B-AB.ADA uses pragma INLINE for functions which is not supported by this compiler.

## 2.4 IMPLEMENTATION CHARACTERISTICS

One of the purposes for validating is to determine the behavior of a compiler in those areas of the Ada Standard that permit implementations to differ. Class D and E tests specifically check for such implementation differences. However, inapplicable tests in other classes also characterize an implementation. This compiler is characterized by the following interpretations of the Ada Standard:

- . Nongraphic characters.

Nongraphic characters are defined in the ASCII character set but are not permitted in Ada programs, even within character strings. The compiler correctly recognizes these characters as illegal in Ada compilations. The characters are not echoed in the output listing, but are printed as space characters.

- . Capacities.

The compiler correctly processes compilations containing loop statements nested to 65 levels, block statements nested to 65 levels, procedures nested to 17 levels, and declarative parts containing 723 variables.

## TEST RESULTS

- . Universal integer calculations.

An implementation is allowed to reject universal integer calculations having values that exceed `SYSTEM.MAX_INT`. This implementation does not reject such calculations and processes them correctly.

- . Predefined types.

This implementation does not support the predefined types `SHORT_INTEGER`, `LONG_INTEGER`, `SHORT_FLOAT`, and `LONG_FLOAT`, nor does it support any other predefined numeric types.

- . Based literals.

An implementation is allowed to reject a based literal with value exceeding `SYSTEM.MAX_INT` during compilation or it may raise `NUMERIC_ERROR` during execution. This compiler raises `NUMERIC_ERROR` during execution.

- . Array types.

An implementation is allowed to raise `NUMERIC_ERROR` for an array having a `'LENGTH'` that exceeds `STANDARD.INTEGER'LAST` and/or `SYSTEM.MAX_INT`. When an array type is declared with an index range exceeding `INTEGER` values and with a component that is a null `BOOLEAN` array, this compiler does not raise any exception.

When an array type is declared with an index range exceeding `SYSTEM.MAX_INT` values and with a component that is a null `BOOLEAN` array, this compiler does not raise any exception.

A packed `BOOLEAN` array of length `INTEGER_LAST+3` raises `NUMERIC_ERROR` when the array type is declared. A packed two-dimensional `BOOLEAN` array with `INTEGER_LAST+3` components raises `NUMERIC_ERROR` when the array type is declared.

In assignment of one-dimensional array types, the entire expression is evaluated before `CONSTRAINT_ERROR` is raised when checking whether the expression's subtype is compatible with the target's subtype. In assignment of two-dimensional array types, the entire expression is not evaluated before `CONSTRAINT_ERROR` is raised when checking whether the expression's subtype is compatible with the target's subtype. In assignment of record types with discriminants, the entire expression is evaluated before `CONSTRAINT_ERROR` is raised when checking whether the expression's subtype is compatible with the target's subtype.

- . Discriminated types.

An incompletely declared type with discriminants may be used in an access type definition and constrained either there or in later subtype indications.

- . Aggregates.

When evaluating the choices of a multi-dimensional aggregate, the order in which choices are evaluated and index subtype checks are made depends upon the aggregate itself.

When evaluating an aggregate containing subaggregates, all choices are evaluated before being checked for identical bounds.

- . Representation clauses.

'SMALL length clauses are not supported.

Enumeration representation clauses are not supported.

- . Package CALENDAR.

TIME\_OF and SPLIT may be inverses when SECONDS is a nonmodel number.

- . Pragmas.

Pragma INLINE is not supported for procedures or functions.

- . Input/output.

Package SEQUENTIAL\_IO cannot be instantiated with unconstrained array types or record types with discriminants. Package DIRECT\_IO cannot be instantiated with unconstrained array types or record types with discriminants without defaults.

Only one internal file can be associated with each external file for sequential, direct, or text I/O.

An existing text file can be opened in OUT\_FILE mode, can be created in OUT\_FILE mode, and can be created in IN\_FILE mode.

Temporary sequential and text files are given a name and temporary files given names are not deleted when closed.

## CHAPTER 3

### COMPILER ANOMALIES AND NONCONFORMANCES

#### 3.1 ANOMALIES

An anomaly is a test result that, given the pre-validation analysis, was not expected during formal validation but which is judged allowable by the AVF and the AVO under the circumstances of the validation. No anomalies were detected in this validation attempt.

#### 3.2 NONCONFORMANCES

Any discrepancy between expected test results and actual test results is considered a nonconformance. No nonconformances were detected in this validation attempt.



## CHAPTER 4

### ADDITIONAL TESTING INFORMATION

#### 4.1 PRE-VALIDATION

Prior to validation, a set of test results for ACVC 1.6 produced by TeleSoft\_Ada, Version 2.3C3, was submitted to the Ada Validation Facility by the applicant for pre-validation review. Analysis of these results demonstrated that the compiler successfully passed all applicable tests.

#### 4.2 TEST SITE

Tests were compiled and executed at TeleSoft, Inc. in San Diego, CA.

#### 4.3 TEST TAPE INFORMATION

A test tape containing ACVC Version 1.6 was taken on-site by the validation team. This tape contained all tests applicable to this validation as well as all tests inapplicable to this validation except for any Class C tests that require floating-point precision exceeding the maximum value supported by the implementation. Tests that were withdrawn from ACVC 1.6 were not written to the tape. Tests that make use of values that are specific to an implementation were customized before being written to the tape. Any split tests were also included on the test tape so that no editing of the test files was necessary when the validation team arrived on-site.

The test tape was written in VAX VMS BACKUP format. The contents of the tape were loaded onto a VAX-11/780 operating under VMS. The files were grouped into bins of 75 tests each and were transported to a Gould PowerNode<sup>TM</sup> Model 9050 operating under UTX through a tape written in ROSVOL format. Once the files were on the Gould PowerNode Model 9050, the bins were moved through tape in TAR format to the CONCEPT/32 Model 9750 which

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<sup>TM</sup>PowerNode is a trademark of Gould Inc.

## ADDITIONAL TESTING INFORMATION

hosts the compiler.

### 4.4 TESTING LOGISTICS

Once all tests had been loaded to disk, processing was begun using command scripts provided by TeleSoft, Inc. The text of these scripts are given in Appendix C.

The compiler supports various options that control its operation. The compiler was tested with the following option settings.

Fe	(default)	Ongoing (+) action
Error_File	(-)	Error file
To_Output	(-)	List to standard output
Dots	(-)	Display one dot per line scanned
Comments	(-)	Pass comments to semantics
Notify	(-)	Ask user for action at error
Verbose	(+)	Verbose output
Long_Integers	(-)	Declare Long_Integer when generating package standard.
32bit_Integers	(-)	Define type Integer with 32 bits when generating package standard.
Long_Float	(-)	Declare Long_Float when generating package standard.
D_Format	(-)	Define type Long_Float with DEC d_format when generating package standard.
Fe_Max_Pages	1500	Pages in memory
Context	1	Lines of context in errors
Recovery_Level	50	Tokens of context in error recovery
Message_Level	0	Verboseness of error messages
Abort_Syntax_Count	999	Max # before aborting compiler
Abort_Warning_Count	999	Max # before aborting compiler
Abort_Semantic_Count	999	Max # before aborting compiler
Quit_Syntax_Count	999	Max # before aborting compiler
Quit_Warning_Count	999	Max # before aborting compiler
Quit_Semantic_Count	999	Max # before aborting compiler
Warnings	(-)	Display warning messages
Fe_Debug	""	Debug set
Console_Name	"console:"	Name of Console
Console_Form	""	Form of Console
Keyboard_Name	"console:"	Name of Keyboard
Keyboard_Form	""	Form of Keyboard
Error_Name	"errors"	Name of list file
Error_Form	""	Form of list file
Table_Name	"cod_fe:ptable"	Name of parse table
Table_Form	""	Form of parse table
Info_Name	"ainfo"	Name of Info file
Info_Form	""	Form of Info file
Message_Name	"cod_fe:mfile"	Name of error message file
Message_Form	""	Form of error message file
Liblst_Name	"liblst"	Name of library file
Liblst_Form	""	Form of library file
Standard	(-)	Generate package Standard.
Source_Name	""	Name of Source file
Source_Form	""	Form of Source file

# ADDITIONAL TESTING INFORMATION

Mp	(default)	Ongoing (-) action
Body	(-)	Body unit
check	(-)	Check for MPST_Node_Already_Exists
debug	(-)	Turn on debugging output
fe_debug	""	Turn on debugging output for FE packages
liblist	"liblist"	Name of sublibrary list file
max_pages	1000	Virtual space pages (like fe_max_pages)
mp_verbose	(-)	Display version, copyright
standard	(-)	Compile standard
varc	""	Various effects, depending on arguments
write	(-)	Write LF even if an error occurred

Cg:	(default)	Ongoing (+) action
asmb1	""	produce an assembly language listing of generated machine instructions.
regopt	""	perform register optimization
spec	""	compile the spec of the unit
body	""	compile the body of a unit
main	""	generate code to bind a unit to its context packages

## Options used in compiling ACVC tests:

- - spec (as appropriate)
- - body (as appropriate)
- - main (as appropriate)
- - list (as appropriate)
- to\_output
- verbose
- notify
- +varc=ek

The tests were submitted in bins (See Section 4.3) beginning with the B tests, followed by the executable tests. The tests which were not applicable to this implementation and those tests which needed to be split were processed last. A new program library containing only the support packages was used at the start of processing for each bin. The results were printed on the system line printer and written to tape in TAR format. The results were then read onto a Gould PowerNode Model 9050 under UTX and transferred from there by tape in ROSVOL format to a VAX-11/780 under VMS where they were archived to tape in VAX VMS BACKUP format.

## ADDITIONAL TESTING INFORMATION

### 4.5 TESTING DURATION

The ACVC has not been designed for use in measuring compiler performance. The information reported here thus merely describes the duration of the on-site conformity testing, and is not necessarily an indication of the subject system's performance for any particular application.

The tests started running at 5:30 p.m. on 2 December 1985 and stopped running at 12:15 a.m. on 6 December 1985. The Gould CONCEPT/32 Model 9750 used to run the tests was dedicated to the validation effort.

## CHAPTER 5

### SUMMARY AND CONCLUSIONS

The Ada Validation Facility identified 1797 tests in Version 1.6 of the Ada Compiler Validation Capability as applicable to TeleSoft\_Ada, Version 2.3C3. All applicable tests were passed by the compiler.

The Ada Validation Facility concludes that these results demonstrate acceptable conformance to the Ada Standard.

APPENDIX A  
COMPLIANCE STATEMENT

The only allowed implementation dependencies correspond to implementation-dependent pragmas and attributes, to certain machine-dependent conventions as mentioned in chapter 13 of MIL-STD-1815A, and to certain allowed restrictions on representation clauses. The implementation-dependent characteristics of the TeleSoft\_Ada compiler, Version 2.3C3, are described in the following sections which discuss topics one through eight as stated in Appendix F of the Ada Language Reference Manual (ANSI/MIL-STD-1815A).

(1) Implementation-Dependent Pragmas

<u>Pragma</u>	<u>Form, Placement, Effect</u>
COMMENT	Takes a string literal as its argument. This pragma may appear within a compilation unit and has the effect of embedding the given sequence of characters in the object code of the compilation unit.

(2) Implementation-Dependent Attributes

There are no implementation-dependent attributes.

# COMPLIANCE STATEMENT

## (3) Package SYSTEM

package SYSTEM is

type ADDRESS is private;  
type NAME is (Gould\_UTX, Gould\_MPX);

SYSTEM\_NAME : constant NAME := Gould\_MPX;  
STORAGE\_UNIT : constant := 8;  
MEMORY\_SIZE : constant := 2\*\*24-1;

-- System-Dependent Declarations:

subtype BYTE is INTEGER range 0 .. 2\*\*8-1;  
subtype INTEGER\_16 is INTEGER range -2\*\*15 .. 2\*\*15-1;  
subtype INTEGER\_32 is INTEGER; -- range -2\*\*31 .. 2\*\*31-1;

-- System-Dependent Named Numbers:

MIN\_INT : constant := -2\*\*31;  
MAX\_INT : constant := +2\*\*31-1;  
MAX\_DIGITS : constant := 6;  
MAX\_MANTISSA : constant := 31;  
FINE\_DELTA : constant := 1.0 / (2.0 \*\* (MAX\_MANTISSA-1));  
TICK : constant := 1.0 / (2.0 \*\* 14);

-- Other System-Dependent Declarations:

MAX\_OBJECT\_SIZE : constant := MAX\_INT;  
MAX\_RECORD\_COUNT : constant := MAX\_INT;  
MAX\_TEXT\_IO\_COUNT : constant := MAX\_INT - 2;  
MAX\_TEXT\_IO\_FIELD : constant := 1000;  
NULL\_ADDRESS : constant ADDRESS;  
type REG\_ARRAY is array (0..7) of INTEGER\_32;  
type SUBPROGRAM\_VALUE is record  
BASE\_REGS : REG\_ARRAY;  
end record;  
subtype PRIORITY is INTEGER range 0 .. 255;

private

type ADDRESS is new INTEGER\_32;  
NULL\_ADDRESS : constant ADDRESS := 0;

end SYSTEM;

(4) Representation Clause Restrictions

The only representation clauses supported are length clauses for tasks ('STORAGE\_SIZE').

(5) Conventions

There are no implementation-generated names denoting implementation-dependent components.

(6) Address Clauses

Address clauses are not supported.

(7) Unchecked Conversions

Unchecked conversions are allowed between variables of types (or subtypes) T1 and T2 provided that:

1. they have the same static size,
2. they are not unconstrained array types, and
3. they are not private (unless they are subtypes of or are derived from type SYSTEM.ADDRESS).

(8) Input-Output Packages

The following are implementation-dependent characteristics of the input-output packages.

SEQUENTIAL IO Package

Instantiations are supported with the following exceptions:

- . unconstrained array types
- . unconstrained types with discriminants

Multiple internal files cannot be opened to the same external file. If an attempt is made to open two internal files to the same external file, the exception USE\_ERROR will be raised.

Calling CREATE with a name of an existing external file does not raise an exception. The old file is overwritten.



## COMPLIANCE STATEMENT

### DIRECT IO Package

type COUNT is range 0 .. 16#7FFFFFFF#;

Instantiations are supported with the following exceptions:

- . unconstrained array types
- . unconstrained types with discriminants

Multiple internal files cannot be opened to the same external file. If an attempt is made to open two internal files to the same external file, the exception `USE_ERROR` will be raised.

Calling `CREATE` with a name of an existing external file does not raise an exception. The old file is overwritten.

### TEXT IO Package

type COUNT is range 0 .. 16#7FFFFFFD#;

subtype FIELD is INTEGER range 0 .. 1000;

Multiple internal files cannot be opened to the same external file. If an attempt is made to open two internal files to the same external file, the exception `USE_ERROR` will be raised.

Calling `CREATE` with a name of an existing external file does not raise an exception. The old file is overwritten.

#### (9) Package STANDARD

type INTEGER is range  $-(2^{31}) .. (2^{31}) - 1$ ;

type FLOAT is digits 6 range  $-((1 - (2^{(-23)}) * (-2^{127}))) .. ((1 - (2^{(-23)}) * (-2^{127})))$ ;

type DURATION is delta  $2^{(-14)}$  range -86400.0 .. 86400.0;

#### (10) File Names

File names make use of the conventions and restrictions of the MPX 3.2 operating system.

APPENDIX B  
TEST PARAMETERS

Certain tests in the ACVC make use of implementation-dependent values, such as the maximum length of an input line and invalid file names. A test that makes use of such values is identified by the extension .TST in its file name. Actual values to be substituted are identified by names that begin with a dollar sign. A value is substituted for each of these names before the test is run. The values used for this validation are given below.

<u>Name and Meaning</u>	<u>Value</u>
\$MAX_IN_LEN Maximum input line length permitted by the implementation.	200
\$BIG_ID1 Identifier of size MAX_IN_LEN with varying last character.	(1..199 => 'A', 200 => '1')
\$BIG_ID2 Identifier of size MAX_IN_LEN with varying last character.	(1..199 => 'A', 200 => '2')
\$BIG_ID3 Identifier of size MAX_IN_LEN with varying middle character.	(1..100 => 'A', 101 => '3', 102..200 => 'A')
\$BIG_ID4 Identifier of size MAX_IN_LEN with varying middle character.	(1..100 => 'A', 101 => '4', 102..200 => 'A')

# TEST PARAMETERS

Name and Meaning	Value
<b>\$NEG_BASED_INT</b> A based integer literal whose highest order nonzero bit falls in the sign bit position of the representation for SYSTEM.MAX_INT.	16#FFFFFFFFE#
<b>\$BIG_INT_LIT</b> An integer literal of value 298 with enough leading zeroes so that it is MAX_IN_LEN characters long.	(1..197 => '0', 198..200 => "298")
<b>\$BIG_REAL_LIT</b> A real literal that can be either of floating- or fixed-point type, has value 690.0, and has enough leading zeroes to be MAX_IN_LEN characters long.	(1..194 => '0', 195..200 => "69.E1")
<b>\$EXTENDED_ASCII_CHARS</b> A string literal containing all the ASCII characters with printable graphics that are not in the basic 55 Ada character set.	"abcdefghijklmnopqrstuvwxyz" & " !\$%?@[ ]^`{}~"
<b>\$NON_ASCII_CHAR_TYPE</b> An enumerated type definition for a character type whose literals are the identifier NON_NULL and all non-ASCII characters with printable graphics.	(NON_NULL)
<b>\$BLANKS</b> Blanks of length MAX_IN_LEN - 20	(1..180 => ' ')
<b>\$MAX_DIGITS</b> Maximum digits supported for floating-point types.	6
<b>\$NAME</b> A name of a predefined numeric type other than FLOAT, INTEGER, SHORT_FLOAT, SHORT_INTEGER, LONG_FLOAT, or LONG_INTEGER.	LONG_LONG_INTEGER

## TEST PARAMETERS

Name and Meaning	Value
<b>\$INTEGER_FIRST</b> The universal integer literal expression whose value is INTEGER'FIRST.	-2**31
<b>\$INTEGER_LAST</b> The universal integer literal expression whose value is INTEGER'LAST.	2**31-1
<b>\$LESS_THAN_DURATION</b> A universal real value that lies between DURATION'BASE'FIRST and DURATION'FIRST or any value in the range of DURATION.	-100_000.0
<b>\$GREATER_THAN_DURATION</b> A universal real value that lies between DURATION'BASE'LAST and DURATION'LAST or any value in the range of DURATION.	100_000.0
<b>\$LESS_THAN_DURATION_BASE_FIRST</b> The universal real value that is less than DURATION'BASE'FIRST.	-10_000_000.0
<b>\$GREATER_THAN_DURATION_BASE_LAST</b> The universal real value that is greater than DURATION'BASE'LAST.	10_000_000.0
<b>\$COUNT_LAST</b> Value of COUNT'LAST in TEXT_IO package.	2**31-3
<b>\$FIELD_LAST</b> Value of FIELD'LAST in TEXT_IO package.	1000
<b>\$FILE_NAME_WITH_BAD_CHARS</b> An illegal external file name that either contains invalid characters or is too long.	"X}}!/@%#\$^&~Y"

# TEST PARAMETERS

<u>Name and Meaning</u>	<u>Value</u>
\$FILE_NAME_WITH_WILD_CARD_CHAR An external file name that either contains a wild card character or is too long.	"XYZ*"
\$ILLEGAL_EXTERNAL_FILE_NAME1 Illegal external file name.	"BAD-CHARACTER%/*^"
\$ILLEGAL_EXTERNAL_FILE_NAME2 Illegal external file names.	(1..120 => 'A')

APPENDIX C  
COMMAND SCRIPTS

Command scripts used for this validation were reviewed by the validation team, but are not available for publication.

## APPENDIX D

### COMPLETE LIST OF TESTS AND RESULTS

This Appendix presents a complete list of the ACVC test files used in the validation attempt, presented in order by ACVC Implementers' Guide section and objective. Each test name indicates the class of the test and which test objective in the ACVC Implementers' Guide applies to the test.

Each test has a name that identifies the section of the Ada Standard addressed by the test objective. The name of a test is interpreted according to the table below, where the first column indicates the character position in the name and the second column, the meaning of that position:

POS	MEANING
1	Test class: A, B, C, D, E, L.
2	Implementers' Guide chapter number (in hexadecimal).
3	Implementers' Guide section number within a chapter (in Hexadecimal).
4	Implementers' Guide subsection number (in hexadecimal).
5-6	Implementers' Guide Test Objective number (in decimal).
7	Test sequence letter.
8	[Optional] Compilation sequence digit or letter.
9	[Optional] Main program designator in the case of a test having multiple compilation units.

Characters 8 and 9 are only present for tests that consist of several separately compiled units. A series of separately compiled units is counted as one test for reporting purposes. The eighth character indicates the order in which the units are to be compiled, with unit 0 being compiled first. The ninth character is only present for a file containing a main program for a test comprised of multiple files and is always M.

## COMPLETE LIST OF TESTS AND RESULTS

The suffix -AB means the test was written prior to release of the ANSI Standard and is also valid for the version of Ada published in July 1980. The suffix -B means the test was written specifically for the ANSI Standard. Tests without a suffix have not yet had their names revised to -AB.

A file name ending with the extension .TST indicates that the test depends on one or more of the implementation-dependent parameters listed in Appendix B. A file name ending with .DEP indicates that the test is not necessarily applicable to all implementations because it depends upon the support of language features that a compiler may legally not implement.

The result for each file in ACVC Version 1.6 is given in the following pages, where:

- P indicates Passed.
- F indicates Failed.
- N/A indicates Not Applicable to this implementation.
- W indicates Withdrawn due to test errors.
- C indicates Compiled without error.
- A indicates Anomalous.

Indented names are separately compiled units (subtests) of the test under which they appear. A sequence of indented subtest names comprise one test for reporting purposes.



# COMPLETE LIST OF TESTS AND RESULTS

## Support Units

VAR_STRINGS_SPEC.ADA	P
VAR_STRINGS_BODY.ADA	P
REPORT_SPEC-AB.ADA	P
REPORT_BODY-B.ADA	P
CHECK_FILE-B.ADA	P
CZ1101A-AB.ADA	P
CZ1102A-AB.ADA	P
CZ1103A-B.ADA	P
CZ1201A-AB.ADA	P
CZ1201B-AB.ADA	P
CZ1201C-AB.ADA	P
CZ1201D-AB.ADA	P

# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 2

A21001A.ADA	P	B23002A.ADA	P	C24113C-B.DEP	N/A
A22002A.ADA	P	B23003D-AB.TST	P	C24113D-B.DEP	N/A
A26004A.TST	P	B23003E-AB.TST	P	C24113E-B.DEP	N/A
A29002A-B.ADA	P	B23003F-AB.TST	P	C24113F-B.DEP	N/A
A29002B-B.ADA	P	B23004A.ADA	P	C24113G-B.DEP	N/A
A29002C-B.ADA	P	B23004B.ADA	P	C24113H-B.DEP	N/A
A29002D-B.ADA	P	B24001A.ADA	P	C24113I-B.DEP	N/A
A29002E-B.ADA	P	B24001B.ADA	P	C24113J-B.DEP	N/A
A29002F-B.ADA	P	B24001C.ADA	P	C24113K-B.DEP	N/A
A29002G-B.ADA	P	B24005A.ADA	P	C24113L-B.DEP	N/A
A29002H-B.ADA	P	B24005B.ADA	P	C24113M-B.DEP	N/A
A29002I-B.ADA	P	B24104A.ADA	P	C24113N-B.DEP	N/A
A29002J-B.ADA	P	B24104B.ADA	P	C24113O-B.DEP	N/A
B22001A-AB.TST	P	B24104C.ADA	P	C24113P-B.DEP	N/A
B22001B-AB.TST	P	B26002A.ADA	P	C24113Q-B.DEP	N/A
B22001C-AB.TST	P	B26005A.ADA	P	C24113R-B.DEP	N/A
B22001D-AB.TST	P	B29001A-B.ADA	P	C24113S-B.DEP	N/A
B22001E-AB.TST	P	C23001A.ADA	P	C24113T-B.DEP	N/A
B22001F-AB.TST	P	C23003A.TST	P	C24113U-B.DEP	N/A
B22001G-AB.TST	P	C24002A.ADA	P	C24113V-B.DEP	N/A
B22001H-AB.ADA	P	C24002B.ADA	P	C24113W-B.DEP	N/A
B22001I-AB.TST	P	C24002C.ADA	P	C24113X-B.DEP	N/A
B22001J-AB.TST	P	C24003A.TST	P	C24113Y-B.DEP	N/A
B22001K-AB.TST	P	C24003B.TST	P	C26002B.ADA	P
B22001L-AB.TST	P	C24003C.TST	P	C26006A-AB.ADA	P
B22001M-AB.TST	P	C24102A.ADA	P	C26008A-AB.ADA	P
B22001N-AB.TST	P	C24102B.ADA	P	C27001A-AB.ADA	P
B22003A.ADA	P	C24102C.ADA	P	C27002A-B.ADA	P
B22004A.ADA	P	C24103A.ADA	P	D29002K-B.ADA	P
B22004B.ADA	P	C24113A-B.DEP	P	E24101A-B.TST	P
B22004C.ADA	P	C24113B-B.DEP	P		

# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 3

A32203B-B.ADA	P	B37004G-B.ADA	P	C34001Q-B.ADA	P
A32203C-B.ADA	P	B37101A.ADA	P	C34001R-B.ADA	P
A32203D-B.ADA	P	B37201A.ADA	P	C34001T-B.ADA	P
A34008B-B.ADA	P	B37202A.ADA	P	C34002A-B.ADA	P
A38106D-B.ADA	P	B37202B.ADA	P	C34002B-B.ADA	P
A38106E-B.ADA	P	B37203A.ADA	P	C35104A.ADA	P
B32103A-AB.ADA	P	B37204A-AB.ADA	P	C35504A-AB.ADA	P
B32106A-B.ADA	P	B37205A-AB.ADA	P	C35504B-B.ADA	P
B32201A-B.ADA	P	B37301A.ADA	P	C35505A.ADA	P
B32202A-B.ADA	P	B37301B.ADA	P	C35505B.ADA	P
B32202B-B.ADA	P	B37302A-AB.ADA	P	C35508A-AB.ADA	P
B32202C-B.ADA	P	B37303A.ADA	P	C35508B-B.ADA	P
B33001A.ADA	P	B37307B-AB.ADA	P	C35702A-AB.DEP	N/A
B33002A.ADA	P	B37309B-AB.ADA	P	C35702B-AB.DEP	N/A
B33003A.ADA	P	B37310B-B.ADA	P	C35703A.ADA	P
B33003B-AB.ADA	P	B37311A-AB.ADA	P	C35704A-AB.ADA	P
B33003C-AB.ADA	P	B38001A.ADA	P	C35704B-AB.ADA	P
B33004A.ADA	P	B38003A-AB.ADA	P	C35704C-AB.ADA	P
B33006A-B.ADA	P	B38008A-B.ADA	P	C35704D-AB.ADA	P
B34001S-AB.ADA	P	B38008B-AB.ADA	P	C35705A-B.DEP	P
B34008A-B.ADA	P	B38101A-B.ADA	P	C35705B-B.DEP	P
B35101A.ADA	P	B38101B-AB.ADA	P	C35705C-B.DEP	N/A
B35301A.ADA	P	B38103A-B.ADA	P	C35705D-B.DEP	N/A
B35501A.ADA	P	B38103B-B.ADA	P	C35705E-B.DEP	N/A
B35506A.ADA	P	B38103C-B.ADA	P	C35705F-B.DEP	N/A
B35506B.ADA	P	B38103C0	C	C35705G-B.DEP	N/A
B35701A.TST	P	B38103C1	C	C35705H-B.DEP	N/A
B35709A.ADA	P	B38103C2	C	C35705I-B.DEP	N/A
B35A03A-B.ADA	P	B38103C3M	C	C35705J-B.DEP	N/A
B36101A-AB.ADA	P	B38105A-AB.ADA	P	C35705K-B.DEP	N/A
B36102A.ADA	P	B38105B-AB.ADA	W	C35705L-B.DEP	N/A
B36103A.ADA	P	B38106A-B.ADA	P	C35705M-B.DEP	N/A
B36105A-B.ADA	P	B38106B-B.ADA	P	C35705N-B.DEP	N/A
B36171A-B.ADA	P	C32107B-B.ADA	P	C35705O-B.DEP	N/A
B36171B-B.ADA	P	C32203A-B.ADA	P	C35705P-B.DEP	N/A
B36171C-AB.ADA	P	C34001A-B.ADA	P	C35705Q-B.DEP	N/A
B36171D-AB.ADA	P	C34001B-B.ADA	P	C35705R-B.DEP	N/A
B36171E-AB.ADA	P	C34001C-B.ADA	P	C35705S-B.DEP	N/A
B36171F-AB.ADA	P	C34001D-B.DEP	N/A	C35705T-B.DEP	N/A
B36171G-AB.ADA	P	C34001E-B.DEP	N/A	C35705U-B.DEP	N/A
B36171H-AB.ADA	P	C34001F-B.DEP	N/A	C35705V-B.DEP	N/A
B36171I-AB.ADA	P	C34001G-B.DEP	N/A	C35705W-B.DEP	N/A
B36201A-B.ADA	P	C34001H-B.ADA	P	C35705X-B.DEP	N/A
B37003A-AB.ADA	P	C34001I-B.ADA	P	C35705Y-B.DEP	N/A
B37004A-B.ADA	P	C34001K-B.ADA	P	C35706A-B.DEP	P
B37004B-B.ADA	P	C34001L-B.ADA	P	C35706B-B.DEP	P
B37004C-B.ADA	P	C34001M-B.ADA	P	C35706C-B.DEP	N/A
B37004D-B.ADA	P	C34001N-B.ADA	P	C35706D-B.DEP	N/A
B37004E-B.ADA	P	C34001O-B.ADA	P	C35706E-B.DEP	N/A
B37004F-B.ADA	P	C34001P-B.ADA	P	C35706F-B.DEP	N/A

# COMPLETE LIST OF TESTS AND RESULTS

C35706G-B.DEP	N/A	C35708G-B.DEP	N/A	C36205B.ADA	P
C35706H-B.DEP	N/A	C35708H-B.DEP	N/A	C36205C.ADA	P
C35706I-B.DEP	N/A	C35708I-B.DEP	N/A	C36205D.ADA	P
C35706J-B.DEP	N/A	C35708J-B.DEP	N/A	C36205E.ADA	P
C35706K-B.DEP	N/A	C35708K-B.DEP	N/A	C36205F.ADA	P
C35706L-B.DEP	N/A	C35708L-B.DEP	N/A	C36205G.ADA	P
C35706M-B.DEP	N/A	C35708M-B.DEP	N/A	C36205H.ADA	P
C35706N-B.DEP	N/A	C35708N-B.DEP	N/A	C36205I.ADA	P
C35706O-B.DEP	N/A	C35708O-B.DEP	N/A	C36205J.ADA	P
C35706P-B.DEP	N/A	C35708P-B.DEP	N/A	C36205K.ADA	P
C35706Q-B.DEP	N/A	C35708Q-B.DEP	N/A	C36301A-B.ADA	P
C35706R-B.DEP	N/A	C35708R-B.DEP	N/A	C36301B-AB.ADA	P
C35706S-B.DEP	N/A	C35708S-B.DEP	N/A	C36302A.ADA	P
C35706T-B.DEP	N/A	C35708T-B.DEP	N/A	C36303A.ADA	P
C35706U-B.DEP	N/A	C35708U-B.DEP	N/A	C36304A-B.ADA	P
C35706V-B.DEP	N/A	C35708V-B.DEP	N/A	C36305A-AB.ADA	P
C35706W-B.DEP	N/A	C35708W-B.DEP	N/A	C37005A.ADA	P
C35706X-B.DEP	N/A	C35708X-B.DEP	N/A	C37007A-AB.ADA	P
C35706Y-B.DEP	N/A	C35708Y-B.DEP	N/A	C37008A-B.ADA	P
C35707A-B.DEP	P	C35711A-B.ADA	P	C37008B-B.ADA	P
C35707B-B.DEP	P	C35802A-B.DEP	P	C37011A-B.ADA	P
C35707C-B.DEP	N/A	C35802B-B.DEP	P	C37012A-AB.ADA	P
C35707D-B.DEP	N/A	C35802C-B.DEP	N/A	C37013A-AB.ADA	P
C35707E-B.DEP	N/A	C35802D-B.DEP	N/A	C37103A-AB.ADA	P
C35707F-B.DEP	N/A	C35802E-B.DEP	N/A	C37105A.ADA	P
C35707G-B.DEP	N/A	C35802F-B.DEP	N/A	C37208A-B.ADA	P
C35707H-B.DEP	N/A	C35802G-B.DEP	N/A	C37208B-AB.ADA	P
C35707I-B.DEP	N/A	C35802H-B.DEP	N/A	C37209A.ADA	P
C35707J-B.DEP	N/A	C35802I-B.DEP	N/A	C37304A-AB.ADA	P
C35707K-B.DEP	N/A	C35802J-B.DEP	N/A	C37305A.ADA	P
C35707L-B.DEP	N/A	C35802K-B.DEP	N/A	C37306A.ADA	P
C35707M-B.DEP	N/A	C35802L-B.DEP	N/A	C37307A-AB.ADA	P
C35707N-B.DEP	N/A	C35802M-B.DEP	N/A	C37309A-AB.ADA	P
C35707O-B.DEP	N/A	C35802N-B.DEP	N/A	C37310A-AB.ADA	P
C35707P-B.DEP	N/A	C35802O-B.DEP	N/A	C38004A.ADA	P
C35707Q-B.DEP	N/A	C35802P-B.DEP	N/A	C38005A-B.ADA	P
C35707R-B.DEP	N/A	C35802Q-B.DEP	N/A	C38006A-B.ADA	P
C35707S-B.DEP	N/A	C35802R-B.DEP	N/A	C38007A-B.ADA	P
C35707T-B.DEP	N/A	C35802S-B.DEP	N/A	C38102A-AB.ADA	P
C35707U-B.DEP	N/A	C35802T-B.DEP	N/A	C38102B-B.ADA	P
C35707V-B.DEP	N/A	C35802U-B.DEP	N/A	C38102C-B.ADA	P
C35707W-B.DEP	N/A	C35802V-B.DEP	N/A	E36202A-B.ADA	P
C35707X-B.DEP	N/A	C35802W-B.DEP	N/A	E36202B-B.ADA	P
C35707Y-B.DEP	N/A	C35802X-B.DEP	N/A	E38104A-B.ADA	P
C35708A-B.DEP	P	C35802Y-B.DEP	N/A		
C35708B-B.DEP	P	C35904A-B.ADA	W		
C35708C-B.DEP	N/A	C36172A-B.ADA	P		
C35708D-B.DEP	N/A	C36174A-B.ADA	P		
C35708E-B.DEP	N/A	C36204A-B.ADA	P		
C35708F-B.DEP	N/A	C36205A.ADA	P		

# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 4

B41101A-B.ADA	P	B45208A-AB.ADA	P	C41303F-B.ADA	P
B41101C-AB.ADA	P	B45208B-B.ADA	P	C41303G-B.ADA	P
B41102A-AB.ADA	P	B45208C-B.ADA	P	C41303I-B.ADA	P
B41102B-B.ADA	P	B45208G-AB.ADA	P	C41303J-B.ADA	P
B41102C-B.ADA	P	B45208H-B.ADA	P	C41303K-B.ADA	P
B41201A-B.ADA	P	B45208I-B.ADA	P	C41303M-B.ADA	P
B41201C.ADA	P	B45208M-AB.ADA	P	C41303N-B.ADA	P
B41202A-B.ADA	P	B45208N-AB.ADA	P	C41303O-B.ADA	P
B41202B-AB.ADA	P	B45208S-AB.ADA	P	C41303Q-B.ADA	P
B41202C-B.ADA	P	B45208T-AB.ADA	P	C41303R-B.ADA	P
B41202D-B.ADA	P	B45261A-AB.ADA	P	C41303S-B.ADA	P
B41302A-AB.ADA	P	B45261B-AB.ADA	P	C41303U-B.ADA	P
B41302B-AB.ADA	P	B45261C-AB.ADA	P	C41303V-B.ADA	P
B42004A-B.ADA	P	B45261D-AB.ADA	P	C41303W-B.ADA	P
B43101A-B.ADA	P	B45402A.ADA	P	C41304A-B.ADA	P
B43201A-B.ADA	P	B45522A.ADA	P	C41306A-B.ADA	P
B43201B-B.ADA	P	B45533A-AB.ADA	P	C41306B-B.ADA	P
B43201C-B.ADA	P	B48001A-B.ADA	P	C41306C-B.ADA	P
B43201D-B.ADA	P	B48001B-B.ADA	P	C42005A-B.ADA	P
B43202A-B.ADA	P	B48002A-B.ADA	P	C42006A-B.ADA	P
B43202B-B.ADA	P	B48002B-B.ADA	P	C43103A-B.ADA	P
B43202C-B.ADA	P	B48002C-B.ADA	P	C43103B-B.ADA	P
B43203A-B.ADA	P	B48002D-B.ADA	P	C43107A-B.ADA	P
B43203B-B.ADA	P	B48002E-B.ADA	P	C43205A-B.ADA	P
B44001A-B.ADA	P	B48002F-B.ADA	P	C43205B-B.ADA	P
B44002A-B.ADA	P	B48002G-B.ADA	P	C43205C-B.ADA	P
B44002B-B.ADA	P	B48003A-B.ADA	P	C43205D-B.ADA	P
B44002C.ADA	P	B48003B-B.ADA	P	C43205E-B.ADA	P
B45102A-AB.ADA	P	B48003C-B.ADA	P	C43205F-B.ADA	P
B45203A.ADA	P	B48003D-B.ADA	P	C43205G-B.ADA	P
B45203B-AB.ADA	P	B48003E-B.ADA	P	C43205H-B.ADA	P
B45205A-AB.ADA	P	B4A006A-B.ADA	P	C43205I-B.ADA	P
B45206A-AB.ADA	P	B4A016A.ADA	P	C43205J-B.ADA	P
B45206B-B.ADA	P	C41101D-B.ADA	P	C43205K-B.ADA	P
B45207A-AB.ADA	P	C41103A-B.ADA	P	C43206A-B.ADA	P
B45207B-B.ADA	P	C41103B-B.ADA	P	C43207A-B.ADA	P
B45207C-B.ADA	P	C41105A-B.ADA	P	C43207B-B.ADA	P
B45207D-B.ADA	P	C41106A-B.ADA	P	C43207C-B.ADA	P
B45207G-B.ADA	P	C41107A-AB.ADA	P	C43207D-B.ADA	P
B45207H-B.ADA	P	C41201D-B.ADA	P	C43208A-B.ADA	P
B45207I-B.ADA	P	C41203A-B.ADA	P	C43208B-B.ADA	P
B45207J-B.ADA	P	C41203B-B.ADA	P	C43210A-B.ADA	P
B45207M-AB.ADA	P	C41204A.ADA	P	C43211A-B.ADA	P
B45207N-AB.ADA	P	C41205A-B.ADA	P	C43212A-B.ADA	P
B45207O-AB.ADA	P	C41206A.ADA	P	C43212C-B.ADA	P
B45207P-B.ADA	P	C41301A-B.ADA	P	C43213A-B.ADA	P
B45207S-AB.ADA	P	C41303A-B.ADA	P	C43214A-B.ADA	P
B45207T-AB.ADA	P	C41303B-B.ADA	P	C43214B-B.ADA	P
B45207U-AB.ADA	P	C41303C-B.ADA	P	C43214C-B.ADA	P
B45207V-B.ADA	P	C41303E-B.ADA	P	C43214D-B.ADA	P

# COMPLETE LIST OF TESTS AND RESULTS

C43214E-B.ADA	P	C45241X-B.DEP	N/A	C45421J-B.DEP	N/A
C43214F-B.ADA	P	C45241Y-B.DEP	N/A	C45421K-B.DEP	N/A
C43215A-B.ADA	P	C45264A-B.ADA	P	C45421L-B.DEP	N/A
C43215B-B.ADA	P	C45274A-AB.ADA	P	C45421M-B.DEP	N/A
C45101A.ADA	P	C45274B-AB.ADA	P	C45421N-B.DEP	N/A
C45101B.ADA	P	C45274C-AB.ADA	P	C45421O-B.DEP	N/A
C45101C.ADA	P	C45303A-B.ADA	P	C45421P-B.DEP	N/A
C45101E.ADA	P	C45321A-B.DEP	P	C45421Q-B.DEP	N/A
C45101G-AB.ADA	P	C45321B-B.DEP	P	C45421R-B.DEP	N/A
C45101H-AB.ADA	P	C45321C-B.DEP	N/A	C45421S-B.DEP	N/A
C45101I.ADA	P	C45321D-B.DEP	N/A	C45421T-B.DEP	N/A
C45103A-AB.ADA	P	C45321E-B.DEP	N/A	C45421U-B.DEP	N/A
C45103B-AB.ADA	P	C45321F-B.DEP	N/A	C45421V-B.DEP	N/A
C45103C-AB.ADA	P	C45321G-B.DEP	N/A	C45421W-B.DEP	N/A
C45104A.ADA	P	C45321H-B.DEP	N/A	C45421X-B.DEP	N/A
C45105A-AB.ADA	P	C45321I-B.DEP	N/A	C45421Y-B.DEP	N/A
C45105B-B.ADA	P	C45321J-B.DEP	N/A	C45424A-B.DEP	P
C45106A.ADA	P	C45321K-B.DEP	N/A	C45424B-B.DEP	P
C45201A.ADA	P	C45321L-B.DEP	N/A	C45424C-B.DEP	N/A
C45201B.ADA	P	C45321M-B.DEP	N/A	C45424D-B.DEP	N/A
C45202A-AB.ADA	P	C45321N-B.DEP	N/A	C45424E-B.DEP	N/A
C45210A.ADA	P	C45321O-B.DEP	N/A	C45424F-B.DEP	N/A
C45220A.ADA	P	C45321P-B.DEP	N/A	C45424G-B.DEP	N/A
C45220B.ADA	P	C45321Q-B.DEP	N/A	C45424H-B.DEP	N/A
C45220C.ADA	P	C45321R-B.DEP	N/A	C45424I-B.DEP	N/A
C45220D.ADA	P	C45321S-B.DEP	N/A	C45424J-B.DEP	N/A
C45220E-B.ADA	P	C45321T-B.DEP	N/A	C45424K-B.DEP	N/A
C45241A-B.DEP	P	C45321U-B.DEP	N/A	C45424L-B.DEP	N/A
C45241B-B.DEP	P	C45321V-B.DEP	N/A	C45424M-B.DEP	N/A
C45241C-B.DEP	N/A	C45321W-B.DEP	N/A	C45424N-B.DEP	N/A
C45241D-B.DEP	N/A	C45321X-B.DEP	N/A	C45424O-B.DEP	N/A
C45241E-B.DEP	N/A	C45321Y-B.DEP	N/A	C45424P-B.DEP	N/A
C45241F-B.DEP	N/A	C45342A-AB.ADA	P	C45424Q-B.DEP	N/A
C45241G-B.DEP	N/A	C45343A-AB.ADA	P	C45424R-B.DEP	N/A
C45241H-B.DEP	N/A	C45345A-AB.ADA	P	C45424S-B.DEP	N/A
C45241I-B.DEP	N/A	C45345B-AB.ADA	P	C45424T-B.DEP	N/A
C45241J-B.DEP	N/A	C45345C-AB.ADA	P	C45424U-B.DEP	N/A
C45241K-B.DEP	N/A	C45345D-AB.ADA	P	C45424V-B.DEP	N/A
C45241L-B.DEP	N/A	C45401A.ADA	P	C45424W-B.DEP	N/A
C45241M-B.DEP	N/A	C45401B-AB.ADA	P	C45424X-B.DEP	N/A
C45241N-B.DEP	N/A	C45413A-B.ADA	P	C45424Y-B.DEP	N/A
C45241O-B.DEP	N/A	C45421A-B.DEP	P	C45505A-B.ADA	P
C45241P-B.DEP	N/A	C45421B-B.DEP	P	C45521A-B.DEP	W
C45241Q-B.DEP	N/A	C45421C-B.DEP	N/A	C45521B-B.DEP	W
C45241R-B.DEP	N/A	C45421D-B.DEP	N/A	C45521C-B.DEP	W
C45241S-B.DEP	N/A	C45421E-B.DEP	N/A	C45521D-B.DEP	W
C45241T-B.DEP	N/A	C45421F-B.DEP	N/A	C45521E-B.DEP	W
C45241U-B.DEP	N/A	C45421G-B.DEP	N/A	C45521F-B.DEP	W
C45241V-B.DEP	N/A	C45421H-B.DEP	N/A	C45521G-B.DEP	W
C45241W-B.DEP	N/A	C45421I-B.DEP	N/A	C45521H-B.DEP	W

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C45521I-B.DEP	W	C45621L.DEP	N/A	C48008A-B.ADA	P
C45521J-B.DEP	W	C45621M.DEP	N/A	C48008B-B.ADA	P
C45521K-B.DEP	W	C45621N.DEP	N/A	C48008C-B.ADA	P
C45521L-B.DEP	W	C45621O.DEP	N/A	C48008D-B.ADA	P
C45521M-B.DEP	W	C45621P.DEP	N/A	C48009A-B.ADA	P
C45521N-B.DEP	W	C45621Q.DEP	N/A	C48009B-B.ADA	P
C45521O-B.DEP	W	C45621R.DEP	N/A	C48009C-B.ADA	P
C45521P-B.DEP	W	C45621S.DEP	N/A	C48009D-B.ADA	P
C45521Q-B.DEP	W	C45621T.DEP	N/A	C48009E-B.ADA	P
C45521R-B.DEP	W	C45621U.DEP	N/A	C48009F-B.ADA	P
C45521S-B.DEP	W	C45621V.DEP	N/A	C48009G-B.ADA	P
C45521T-B.DEP	W	C45621W.DEP	N/A	C48009H-B.ADA	P
C45521U-B.DEP	W	C45621X.DEP	N/A	C48009I-B.ADA	P
C45521V-B.DEP	W	C45621Y.DEP	N/A	C48009J-B.ADA	P
C45521W-B.DEP	W	C45621Z.DEP	N/A	C48010A-B.ADA	P
C45521X-B.DEP	W	C48004A-B.ADA	P	C48012A-B.ADA	P
C45521Y-B.DEP	W	C48004B-B.ADA	P	C4A001A.ADA	P
C45526A-B.ADA	P	C48004C-B.ADA	P	C4A003A.ADA	P
C45621A.DEP	P	C48004D-B.ADA	P	C4A010A-B.ADA	P
C45621B.DEP	P	C48004E-B.ADA	P	C4A011A.ADA	P
C45621C.DEP	N/A	C48004F-B.ADA	P	C4A013A.ADA	P
C45621D.DEP	N/A	C48005A-B.ADA	P	D4A002A-AB.ADA	P
C45621E.DEP	N/A	C48005B-B.ADA	P	D4A002B.ADA	P
C45621F.DEP	N/A	C48005C-B.ADA	W	D4A004A-AB.ADA	P
C45621G.DEP	N/A	C48006A-B.ADA	P	D4A004B.ADA	P
C45621H.DEP	N/A	C48006B-B.ADA	W	E43211B-B.ADA	P
C45621I.DEP	N/A	C48007A-B.ADA	P	E43212B-B.ADA	P
C45621J.DEP	N/A	C48007B-B.ADA	P		
C45621K.DEP	N/A	C48007C-B.ADA	P		

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A54B01A-B.ADA	P	B54A21A-B.ADA	P	B57001A-AB.ADA	P
A54B02A-B.ADA	P	B54A25A-B.ADA	P	B57001B-B.ADA	P
A55B12A-AB.ADA	P	B54A27B-AB.ADA	P	B57001C-AB.ADA	P
A55B13A-AB.ADA	P	B54A27D-AB.ADA	P	B57001D-AB.ADA	P
A55B14A-AB.ADA	P	B54B01B-B.TST	P	B58001A-AB.ADA	P
B51001A-AB.ADA	P	B54B01C-B.ADA	P	B58002A-B.ADA	P
B51003A-AB.ADA	P	B54B02B-B.ADA	P	B58002B-AB.ADA	P
B51004B-B.ADA	P	B54B02C-B.ADA	P	B58002C-AB.ADA	P
B51004C-B.ADA	P	B54B02D-B.ADA	P	B58003A-B.ADA	P
B52002A-B.ADA	P	B54B04A-AB.ADA	P	B58003B-AB.ADA	P
B52002B-AB.ADA	P	B54B04B-AB.ADA	P	B59001A-AB.ADA	P
B52002C-AB.ADA	P	B54B05A-AB.ADA	P	B59001C-AB.ADA	P
B52002D-AB.ADA	P	B55A01A-AB.ADA	P	B59001D-AB.ADA	P
B52002E-AB.ADA	P	B55A01B-AB.ADA	P	B59001E-AB.ADA	P
B52002F-B.ADA	P	B55A01C-AB.ADA	P	B59001F-AB.ADA	P
B52002G-AB.ADA	P	B55A01D-AB.ADA	P	B59001G-AB.ADA	P
B52003A-AB.ADA	P	B55A01E-AB.ADA	P	B59001H-AB.ADA	P
B52003B-AB.ADA	P	B55A01F-AB.ADA	P	B59001I-AB.ADA	P
B52003C-AB.ADA	P	B55A01G-AB.ADA	P	C51002A-AB.ADA	P
B52004A-B.ADA	P	B55A01H-AB.ADA	F	C51004A-B.ADA	P
B52004B-AB.ADA	P	B55A01I-AB.ADA	P	C52001A-B.ADA	P
B52004C-AB.ADA	P	B55A01J-AB.ADA	P	C52001B-AB.ADA	P
B52004D-AB.DEP	N/A	B55A01K-AB.ADA	P	C52001C-AB.ADA	P
B52004E-AB.DEP	N/A	B55A01L-AB.ADA	P	C52005A-AB.ADA	P
B52006A-AB.ADA	P	B55A01M-AB.ADA	P	C52005B-AB.ADA	P
B53001A-AB.ADA	P	B55A01N-AB.ADA	P	C52005C-AB.ADA	P
B53001B-AB.ADA	P	B55A01O-AB.ADA	P	C52005D-AB.ADA	P
B53002A-AB.ADA	P	B55A01P-AB.ADA	P	C52005E-AB.ADA	P
B53002B-AB.ADA	P	B55A01Q-AB.ADA	P	C52005F-AB.ADA	P
B53003A-AB.ADA	P	B55A01R-AB.ADA	P	C52007A-B.ADA	P
B53004A-AB.ADA	P	B55A01S-AB.ADA	P	C52008A-AB.ADA	P
B53009A-AB.ADA	P	B55A01T-AB.ADA	P	C52008B-B.ADA	N/A
B53009B-AB.ADA	P	B55A01U-AB.ADA	P	C52009A-B.ADA	P
B53009C-AB.ADA	P	B55A01V-AB.ADA	P	C52009B-B.ADA	P
B54A01A-AB.ADA	P	B55B01A-AB.ADA	P	C52010A-AB.ADA	P
B54A01B-AB.ADA	P	B55B01B-AB.ADA	P	C52011A-B.ADA	P
B54A01C-AB.ADA	P	B55B09B-AB.ADA	P	C52011B-AB.ADA	P
B54A01D-AB.ADA	P	B55B09C-AB.DEP	N/A	C52012A-AB.ADA	P
B54A01E-AB.ADA	P	B55B09D-AB.DEP	N/A	C52012B-AB.ADA	P
B54A01F-AB.ADA	P	B55B12B-B.ADA	P	C52013A-B.ADA	P
B54A01G-AB.ADA	P	B55B12C-AB.ADA	P	C52101A-AB.ADA	P
B54A01H-AB.ADA	P	B55B14B-B.ADA	P	C52102A-AB.ADA	P
B54A01I-AB.ADA	P	B55B18A-B.ADA	P	C52102B-AB.ADA	P
B54A01J-AB.ADA	P	B56001A-AB.ADA	P	C52102C-AB.ADA	P
B54A01K-AB.ADA	P	B56001C-AB.ADA	P	C52102D-AB.ADA	P
B54A01L-AB.ADA	P	B56001D-AB.ADA	P	C52103A-AB.ADA	P
B54A05A.ADA	P	B56001E-AB.ADA	P	C52103B-AB.ADA	P
B54A05B.ADA	P	B56001F-AB.ADA	P	C52103C-AB.ADA	P
B54A08A-B.ADA	P	B56001G-AB.ADA	P	C52103F-AB.ADA	P
B54A20A.ADA	P	B56001H-AB.ADA	P	C52103G-AB.ADA	P



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C52103H-AB.ADA	P	C54A07A-AB.ADA	P	C57002A-AB.ADA	P
C52103K-AB.ADA	P	C54A22A-AB.ADA	P	C57003A-AB.ADA	P
C52103L-AB.ADA	P	C54A23A-B.ADA	P	C57004A-AB.ADA	P
C52103M-AB.ADA	P	C54A24A-AB.ADA	P	C57004B-AB.ADA	P
C52103P-AB.ADA	P	C54A24B.ADA	P	C57004C-AB.ADA	P
C52103Q-AB.ADA	P	C54A26A.ADA	P	C57005A-B.ADA	P
C52103R-AB.ADA	P	C54A27A-AB.ADA	P	C58004A-AB.ADA	P
C52103S-B.ADA	P	C54A41A.ADA	P	C58004B-AB.ADA	P
C52103X-B.ADA	P	C54A42A.ADA	P	C58004C-AB.ADA	P
C52104A-AB.ADA	P	C54A42B.ADA	P	C58004D-B.ADA	P
C52104B-AB.ADA	P	C54A42C.ADA	P	C58004F-AB.ADA	P
C52104C-AB.ADA	P	C54A42D.ADA	P	C58004G-AB.ADA	P
C52104F-AB.ADA	P	C54A42E.ADA	P	C58005A-AB.ADA	P
C52104G-AB.ADA	P	C54A42F.ADA	P	C58005B-AB.ADA	P
C52104H-AB.ADA	P	C54A42G.ADA	P	C58005H-AB.ADA	P
C52104K-AB.ADA	P	C55B03A-AB.ADA	P	C58006A-AB.ADA	P
C52104L-AB.ADA	P	C55B04A-AB.ADA	P	C58006B-AB.ADA	P
C52104M-AB.ADA	P	C55B05A-AB.ADA	P	C59001B-AB.ADA	P
C52104P-AB.ADA	P	C55B06A-AB.ADA	P	C59002A-AB.ADA	P
C52104Q-AB.ADA	P	C55B06B-AB.ADA	P	C59002B-AB.ADA	P
C52104R-AB.ADA	P	C55B07A-AB.DEP	N/A	C59002C-B.ADA	P
C52104X-B.ADA	P	C55B07B-AB.DEP	N/A	D55A03A-AB.ADA	P
C52104Y-B.ADA	P	C55B08A-B.ADA	P	D55A03B-AB.ADA	P
C53004B-B.ADA	P	C55B09A-AB.ADA	P	D55A03C-AB.ADA	P
C53005A-AB.ADA	P	C55B15A-B.ADA	P	D55A03D-AB.ADA	P
C53005B-AB.ADA	P	C55B16A-AB.DEP	N/A	D55A03E-AB.ADA	P
C53006A-AB.ADA	P	C55C01A-B.ADA	P	D55A03F-AB.ADA	P
C53006B-AB.ADA	P	C55C02A-AB.ADA	P	D55A03G-AB.ADA	P
C53007A-AB.ADA	P	C55C02B-AB.ADA	P	D55A03H-AB.ADA	P
C53008A-AB.ADA	P	C55C03A-AB.ADA	P	D56001B-AB.ADA	P
C54A03A.ADA	P	C55C03B-AB.ADA	P	E52103Y-B.ADA	P
C54A04A-AB.ADA	P	C55D01A-AB.ADA	P		
C54A06A-AB.ADA	P	C56002A-AB.ADA	P		

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A62006D-B.ADA	P	B63102A-B.ADA	P	C64103B-B.ADA	P
A63202A-AB.ADA	P	B63103A-B.ADA	P	C64103C-B.ADA	W
B61001A-AB.ADA	P	B64001A-B.ADA	P	C64103D-B.ADA	W
B61001B-AB.ADA	P	B64002A-B.ADA	P	C64103E-B.ADA	P
B61001C-AB.ADA	P	B64002C-B.ADA	P	C64103F-B.ADA	P
B61001D-AB.ADA	P	B64003A-B.ADA	P	C64104A-AB.ADA	P
B61001E-AB.ADA	P	B64004A-B.ADA	P	C64104B-AB.ADA	P
B61001F-AB.ADA	P	B64004B-B.ADA	P	C64104C-AB.ADA	P
B61001G-AB.ADA	P	B64004C-B.ADA	P	C64104D-AB.ADA	P
B61001H-AB.ADA	P	B64004D-B.ADA	P	C64104E-AB.ADA	P
B61001I-AB.ADA	P	B64004E-B.ADA	P	C64104F-AB.ADA	P
B61001J-AB.ADA	P	B64004F-B.ADA	P	C64104G-AB.ADA	P
B61001K-AB.ADA	P	B64006A-B.ADA	P	C64104H-B.ADA	P
B61001L-AB.ADA	P	B64101A-B.ADA	P	C64104I-B.ADA	P
B61001M-AB.ADA	P	B64201A-B.ADA	P	C64104J-B.ADA	P
B61001N-AB.ADA	P	B65001A-B.ADA	P	C64104K-AB.ADA	P
B61001O-AB.ADA	P	B65002A-AB.ADA	P	C64104L-AB.ADA	P
B61001P-AB.ADA	P	B65002B-AB.ADA	P	C64104M-AB.ADA	P
B61001Q-AB.ADA	P	B66001A-B.ADA	W	C64104N-B.ADA	P
B61001R-AB.ADA	P	B66001B-B.ADA	P	C64104O-B.ADA	P
B61001S-AB.ADA	P	B66001C-B.ADA	P	C64105A-AB.ADA	P
B61001T-AB.ADA	P	B67001A-B.ADA	W	C64105B-AB.ADA	P
B61001U-AB.ADA	P	B67001B-B.ADA	P	C64105C-AB.ADA	P
B61001V-AB.ADA	P	B67001C-B.ADA	P	C64105D-AB.ADA	P
B61001W-AB.ADA	P	B67001D-B.ADA	P	C64105E-AB.ADA	W
B61003A-AB.ADA	P	B67001E-B.ADA	P	C64105F-AB.ADA	W
B61006A-B.ADA	P	B67001F-B.ADA	P	C64106A-B.ADA	P
B61011A-B.ADA	P	B67001G-B.ADA	P	C64106B-B.ADA	P
B61012A-B.ADA	P	B67004A-B.ADA	W	C64106C-B.ADA	P
B62001A-AB.ADA	P	C61003B-AB.ADA	P	C64106D-B.ADA	P
B62001B-AB.ADA	P	C61008A-B.ADA	P	C64107A-B.ADA	P
B62001C-AB.ADA	P	C61009A-B.ADA	P	C64108A-B.ADA	P
B62001D-AB.ADA	P	C61010A-AB.ADA	P	C64201B-B.ADA	P
B62006B-B.ADA	P	C62002A-B.ADA	P	C64201C-B.ADA	P
B62006C-B.ADA	P	C62003A-B.ADA	P	C64202A-B.ADA	P
B62006E-B.ADA	P	C62003B-B.ADA	P	C65003A-B.ADA	P
B62006F-B.ADA	P	C62004A-AB.ADA	P	C65003B-B.ADA	P
B63001A-AB.ADA	P	C62006A-B.ADA	P	C66002A-B.ADA	P
B63001B-AB.ADA	P	C63004A-AB.ADA	P	C66002C-AB.ADA	P
B63005A-AB.ADA	P	C64002B-B.ADA	P	C66002D-AB.ADA	P
B63005B-AB.ADA	P	C64004G-B.ADA	P	C66002E-AB.ADA	P
B63005C-AB.ADA	P	C64005A-B.ADA	P	C66002F-AB.ADA	P
B63009A-B.ADA	P	C64005B-B.ADA	P	C66002G-B.ADA	P
B63009B-B.ADA	P	C64005C-B.ADA	P	C67002A-B.ADA	P
B63009C-B.ADA	P	C64005D-B.ADA	P	C67002B-B.ADA	P
B63009C0	C	C64005DOM	C	C67002C-B.ADA	P
B63009C1	C	C64005DA	C	C67002D-B.ADA	P
B63009C2	C	C64005DB	C	C67002E-B.ADA	P
B63009C3	C	C64005DC	C	C67003A-B.ADA	P
B63010A-AB.ADA	P	C64103A-B.ADA	P	C67003B-B.ADA	P

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C67003C-AB.ADA	P	D64005FOM	C	D64005GD	C
C67003D-B.ADA	P	D64005FA	C	D64005GE	C
C67003E-AB.ADA	P	D64005FB	C	D64005GF	C
C67005A-B.ADA	P	D64005FC	C	D64005GG	C
C67005B-B.ADA	P	D64005FD	C	D64005GH	C
C67005C-B.ADA	P	D64005FE	C	D64005GI	C
C67005D-B.ADA	P	D64005FF	C	D64005GJ	C
D64005E-B.ADA	P	D64005FG	C	D64005GK	C
D64005EOM	C	D64005FH	C	D64005GL	C
D64005EA	C	D64005FI	C	D64005GM	C
D64005EB	C	D64005FJ	C	D64005GN	C
D64005EC	C	D64005G-B.ADA	P	D64005GO	C
D64005ED	C	D64005GOM	C	D64005GP	C
D64005EE	C	D64005GA	C	D64005GQ	C
D64005EF	C	D64005GB	C		
D64005F-B.ADA	P	D64005GC	C		

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A71002A-AB.ADA	P	B71001Q-AB.ADA	P	B74105A-B.ADA	P
A71004A-AB.ADA	P	B71001R-AB.ADA	P	B74105C-B.ADA	P
A72001A-AB.ADA	P	B71001T-AB.ADA	P	B74201A-AB.ADA	P
A73001I-AB.ADA	P	B71001U-AB.ADA	P	B74205A-B.ADA	P
A73001J-AB.ADA	P	B71001V-AB.ADA	P	B74205B-B.ADA	P
A74006A-AB.ADA	P	B71001W-AB.ADA	P	B74207A-B.ADA	W
A74105B-B.ADA	P	B71002B-AB.ADA	P	B74301A-B.ADA	P
A74106A-AB.ADA	P	B73001A-AB.ADA	P	B74304A-B.ADA	P
A74106B-AB.ADA	P	B73001B-AB.ADA	P	B74304B-B.ADA	P
A74106C-AB.ADA	P	B73001C-B.ADA	P	B74304C-B.ADA	P
A74205E-B.ADA	P	B73001D-B.ADA	P	B74401A-B.ADA	P
A74205F-B.ADA	P	B73001E-AB.ADA	P	B74401B-B.ADA	P
B71001A-AB.ADA	P	B73001F-AB.ADA	P	B74409A-B.ADA	P
B71001B-AB.ADA	P	B73001G-B.ADA	P	C72001B-AB.ADA	P
B71001C-AB.ADA	P	B73001H-B.ADA	P	C73002A-B.ADA	P
B71001D-AB.ADA	P	B73006A-AB.ADA	P	C74206A-B.ADA	P
B71001E-AB.ADA	P	B74001A-AB.ADA	P	C74207B-B.ADA	P
B71001F-AB.ADA	P	B74001B-AB.ADA	P	C74209A-AB.ADA	P
B71001G-AB.ADA	P	B74003A-B.ADA	P	C74210A-AB.ADA	P
B71001H-AB.ADA	P	B74101A-B.ADA	P	C74211A-B.ADA	P
B71001I-AB.ADA	P	B74103A-B.ADA	P	C74211B-B.ADA	P
B71001J-AB.ADA	P	B74103B-B.ADA	P	C74302A-B.ADA	P
B71001K-AB.ADA	P	B74103C-B.ADA	P	C74305A-B.ADA	P
B71001L-AB.ADA	P	B74103D-B.ADA	P	C74305B-B.ADA	P
B71001M-AB.ADA	P	B74103E-B.ADA	P	C74402A-B.ADA	P
B71001N-AB.ADA	P	B74103F-B.ADA	W	C74402B-B.ADA	P
B71001O-AB.ADA	P	B74103G-B.ADA	P	C74409B-B.ADA	P
B71001P-AB.ADA	P	B74104A-B.ADA	P		

# COMPLETE LIST OF TESTS AND RESULTS

## CHAPTER 8

A83A02A.ADA	P	B86001BK-B.ADA	P	C86002A1	C
A83A02B.ADA	P	B86001BL-B.ADA	P	C86002A2M	C
A83A06A-B.ADA	P	B86001BM-B.ADA	P	C86002B.ADA	P
A83C01C.ADA	P	B86001BO-B.ADA	P	C86002B1	C
A83C01D.ADA	P	B86001BU-B.ADA	P	C86002B2M	C
A83C01E.ADA	P	B86001BV-B.ADA	P	C86003A-B.ADA	P
A83C01F.ADA	P	B86001BW-B.ADA	P	C87A05A-B.ADA	P
A83C01G.ADA	P	B86001BX-B.ADA	P	C87A05B-B.ADA	P
A83C01H.ADA	P	B86001COM-AB.DEP	P	C87B02A-B.ADA	P
A83C01I.ADA	P	B86001CP-AB.DEP	N/A	C87B02B-B.ADA	P
A83C01J.ADA	P	B86001CQ-AB.DEP	N/A	C87B03A-B.ADA	P
A85007D-B.ADA	P	B86001CR-AB.DEP	N/A	C87B04A-B.ADA	P
A85013B-B.ADA	P	B86001CS-AB.DEP	N/A	C87B04B-B.ADA	P
B83A01A-AB.ADA	P	B86001DOM-AB.TST	P	C87B04C-B.ADA	P
B83A01B-B.ADA	P	B86001DT-AB.TST	N/A	C87B05A-B.ADA	P
B83A01C.ADA	P	B87B23B-B.ADA	P	C87B06A-B.ADA	P
B83A05A-AB.ADA	P	B87B48C-B.ADA	P	C87B07A-B.ADA	P
B83A06B-B.ADA	P	C83B02A.ADA	P	C87B07B-B.ADA	P
B83A06H-B.ADA	P	C83B02B.ADA	P	C87B07C-B.ADA	P
B83B01A-AB.ADA	P	C83C01B.ADA	P	C87B07D-B.ADA	P
B83B02C.ADA	P	C83E02A.ADA	P	C87B07E-B.ADA	P
B83C01A-AB.ADA	P	C83E02B.ADA	P	C87B08A-B.ADA	P
B83C02A.ADA	P	C83E03A.ADA	P	C87B09A-B.ADA	P
B83E02C-B.ADA	P	C83E04A.ADA	P	C87B09B-B.ADA	P
B83F02A.ADA	P	C83F01A.ADA	P	C87B09C-B.ADA	P
B83F02B.ADA	P	C83F01B.ADA	P	C87B10A-B.ADA	P
B83F04A-AB.ADA	P	C83F01C.ADA	P	C87B11A-B.ADA	P
B84001A-AB.ADA	P	C83F01C0	C	C87B11B-B.ADA	P
B84002B-B.ADA	P	C83F01C1	C	C87B13A-B.ADA	P
B84004A-B.ADA	P	C83F01C2M	C	C87B14A-B.ADA	P
B84006A-B.ADA	P	C83F01D.ADA	P	C87B14B-B.ADA	P
B85007B-B.ADA	P	C83F01DOM.ADA	C	C87B14C-B.ADA	P
B85007C-B.ADA	P	C83F01D1.ADA	C	C87B14D-B.ADA	P
B85012A-B.ADA	P	C83F03A.ADA	P	C87B15A-B.ADA	P
B85013C-B.ADA	P	C83F03B.ADA	P	C87B16A-B.ADA	P
B85015A-B.ADA	P	C83F03C.ADA	P	C87B17A-B.ADA	P
B86001A-AB.ADA	P	C83F03C0	C	C87B18A-B.ADA	P
B86001A0	C	C83F03C1	C	C87B18B-B.ADA	P
B86001A1M	C	C83F03C2M	C	C87B19A-B.ADA	P
B86001BOM-B.ADA	P	C83F03D.ADA	P	C87B23A-B.ADA	P
B86001BA-B.ADA	P	C83F03DOM	C	C87B24A-B.ADA	P
B86001BB-B.ADA	P	C83F03D1	C	C87B24B-B.ADA	P
B86001BC-B.ADA	P	C84002A-B.ADA	P	C87B26B-B.ADA	P
B86001BD-B.ADA	P	C85007A-B.ADA	P	C87B27A-B.ADA	P
B86001BE-B.ADA	P	C85007E-B.ADA	P	C87B28A-B.ADA	P
B86001BF-B.ADA	P	C85013A-B.ADA	P	C87B29A-B.ADA	P
B86001BG-B.ADA	P	C86001E-B.ADA	P	C87B30A-B.ADA	P
B86001BH-B.ADA	P	C86001F-B.DEP	N/A	C87B31A-B.ADA	P
B86001BI-B.ADA	P	C86002A.ADA	P	C87B32A-B.ADA	P
B86001BJ-B.ADA	P	C86002A0	C	C87B33A-B.ADA	P

# COMPLETE LIST OF TESTS AND RESULTS

C87B34A-B.ADA	P	C87B37E-B.ADA	P	C87B45C-B.ADA	P
C87B34B-B.ADA	P	C87B37F-B.ADA	P	C87B47A-B.ADA	P
C87B34C-B.ADA	P	C87B38A-B.ADA	P	C87B48A-B.ADA	P
C87B35A-B.ADA	P	C87B39A-B.ADA	P	C87B48B-B.ADA	P
C87B35B-B.ADA	P	C87B40A-B.ADA	P	C87B54A-B.ADA	P
C87B35C-B.ADA	P	C87B41A-B.ADA	P	C87B57A-B.ADA	P
C87B37A-B.ADA	P	C87B42A-B.ADA	P	C87B62A-B.DEP	N/A
C87B37B-B.ADA	P	C87B43A-B.ADA	P	C87B62B-B.DEP	N/A
C87B37C-B.ADA	P	C87B44A-B.ADA	P	C87B62C-B.DEP	N/A
C87B37D-B.ADA	P	C87B45A-B.ADA	P		

# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 9

A91002M-B.ADA	P	B950ADA-B.ADA	P	C910BDA-B.ADA	P
A95005A.ADA	P	B950AFA-B.ADA	P	C910BDB-B.ADA	P
A97106A-AB.ADA	P	B950AHA-B.ADA	P	C910BDC-B.ADA	P
B91001A-AB.ADA	P	B950AJA-B.ADA	P	C92002A.ADA	P
B91001B-AB.ADA	P	B950BAA-B.ADA	P	C92003A.ADA	P
B91001C-AB.ADA	P	B950DHA-B.ADA	P	C920AJA-B.ADA	P
B91001D-AB.ADA	P	B96002A-B.ADA	P	C920BAA-B.ADA	P
B91001E-AB.ADA	P	B96003A-B.ADA	P	C920BBA-B.ADA	P
B91001F-AB.ADA	P	B97101A-AB.ADA	P	C920BIA-B.ADA	P
B91001G-B.ADA	P	B97101B-AB.ADA	P	C93001A-B.ADA	P
B91002A-B.ADA	P	B97101C-AB.ADA	P	C93002A-B.ADA	P
B91002B-B.ADA	P	B97101D-AB.ADA	P	C93003A-B.ADA	P
B91002C-B.ADA	P	B97101E-AB.ADA	P	C93005A-B.ADA	W
B91002D-B.ADA	P	B97102A-AB.ADA	P	C93005B-B.ADA	W
B91002E-B.ADA	P	B97102B-AB.ADA	P	C93005C-B.ADA	W
B91002F-B.ADA	P	B97102C-AB.ADA	P	C93006A-AB.ADA	P
B91002G-B.ADA	P	B97102D-AB.ADA	P	C93007B-B.ADA	W
B91002H-B.ADA	P	B97102E-AB.ADA	P	C930ABA-B.ADA	P
B91002I-B.ADA	P	B97102F-AB.ADA	P	C930AEA-B.ADA	P
B91002J-B.ADA	P	B97102G-AB.ADA	P	C930AFA-B.ADA	P
B91002K-B.ADA	P	B97102H-AB.ADA	P	C930AJA-B.ADA	P
B91002L-B.ADA	P	B97102I-AB.ADA	P	C930BAA-B.ADA	P
B91003A-AB.ADA	P	B97103A-AB.ADA	P	C94001A-B.ADA	P
B91004A-B.ADA	P	B97103B-AB.ADA	P	C94002A-B.ADA	P
B910ABA-B.ADA	P	B97103D-AB.ADA	P	C94002B-B.ADA	P
B910ACA-B.ADA	P	B97103E-AB.ADA	P	C94003A-B.ADA	P
B910AEA-B.ADA	P	B97104A-AB.ADA	P	C94004A-B.ADA	P
B910BCA-B.ADA	P	B97104B-AB.ADA	P	C94004B-B.ADA	P
B920ACA-B.ADA	P	B97104C-AB.ADA	P	C94004C-B.ADA	P
B920BDA-B.ADA	P	B97104D-AB.ADA	P	C94005A-B.ADA	P
B920BJA-B.ADA	P	B97104E-AB.ADA	P	C94005B-B.ADA	P
B95001A.ADA	P	B97104F-AB.ADA	P	C94006A-B.ADA	P
B95001B-AB.ADA	P	B97104G-AB.ADA	P	C94007A-B.ADA	P
B95002A.ADA	P	B97107A-AB.ADA	P	C94007B-B.ADA	P
B95004A-AB.ADA	P	B97108A-AB.ADA	P	C94020A-B.ADA	P
B95004B-AB.ADA	P	B97108B-AB.ADA	P	C94021A-B.ADA	P
B95006A.ADA	P	B97109A-AB.ADA	P	C940ABA-B.ADA	P
B95006B-AB.ADA	P	B97110A-AB.ADA	P	C940ACA-B.ADA	P
B95006C-AB.ADA	P	B97110B-AB.ADA	P	C940ACB-B.ADA	P
B95006D-AB.ADA	P	B97111A-AB.ADA	P	C940ADA-B.ADA	P
B95007A-AB.ADA	P	B99001A-AB.ADA	P	C940AGA-B.ADA	P
B95007B-AB.ADA	P	B99001B-B.ADA	P	C940AGB-B.ADA	P
B95020A-B.ADA	P	B99002A-B.ADA	P	C940AHA-B.ADA	P
B95020B-B.ADA	P	B99002B-B.ADA	P	C940AIA-B.ADA	P
B95020B0	C	B99002C-B.ADA	P	C940BAA-B.ADA	P
B95020B1	C	B99003A-AB.ADA	P	C940BBA-B.ADA	P
B95020B2M	C	B9A001A-AB.ADA	P	C95008A-AB.ADA	P
B950ABA-B.ADA	P	B9A001B-AB.ADA	P	C95009A-B.ADA	P
B950ABB-B.ADA	P	C900ACA-B.ADA	P	C95009B.ADA	P
B950ACA-B.ADA	P	C910AHA-B.ADA	P	C95010A.ADA	P

# COMPLETE LIST OF TESTS AND RESULTS

C95011A.ADA	P	C96005A-B.ADA	P	C97203A-AB.ADA	P
C95012A-B.ADA	P	C96005B-B.TST	P	C97203B-AB.ADA	P
C95013A-B.ADA	P	C96005C-B.TST	P	C97204A-B.ADA	P
C95021A-B.ADA	P	C96005D-B.ADA	P	C97303A-AB.ADA	P
C95022A-B.ADA	P	C96005E-B.ADA	P	C97303B-AB.ADA	P
C95022B-B.ADA	P	C96006A-B.ADA	P	C97304A-B.ADA	P
C950ACB-B.ADA	P	C96007A-B.ADA	P	C9A003A-B.ADA	P
C950BGA-B.ADA	P	C96008A-B.ADA	P	C9A004A-B.ADA	P
C950BHA-B.ADA	P	C96008B-B.ADA	P	C9A005A-B.ADA	P
C950BJA-B.ADA	P	C97113A-B.ADA	P	C9A006A-B.ADA	P
C950CAA-B.ADA	P	C97114A-B.ADA	P	C9A007A-B.ADA	P
C950CBA-B.ADA	P	C97115A-B.ADA	P	C9A009A-B.ADA	P
C950CHA-B.ADA	P	C97201A-AB.ADA	P	C9A009B-B.ADA	P
C950CHC-B.ADA	P	C97201D-AB.ADA	P	C9A009C-B.ADA	P
C950DEA-B.ADA	P	C97201E-AB.ADA	P	C9A009D-B.ADA	P
C950DEB-B.ADA	P	C97201G-AB.ADA	P	C9A009E-B.ADA	P
C950DGA-B.ADA	P	C97201H-AB.ADA	P	C9A009F-B.ADA	P
C96001A-B.ADA	P	C97201X-AB.ADA	P	C9A009G-B.ADA	P
C96004A-B.ADA	P	C97202A-AB.ADA	P	C9A009H-B.ADA	P



# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 10

BA1011B-B.ADA	P	BA1101B3	C	BA3001E-AB.ADA	P
BA1011BOM	C	BA1101B4	C	BA3001EOM	C
BA1011B1	C	BA1101C-B.ADA	P	BA3001E1	C
BA1011B2	C	BA1101C0	C	BA3001E2	C
BA1011B3	C	BA1101C1	C	BA3001E3	C
BA1011B4	C	BA1101C2M	C	BA3001F-AB.ADA	P
BA1011B5	C	BA1101C3	C	BA3001FOM	C
BA1011B6	C	BA1101C4	C	BA3001F1	C
BA1011B7	C	BA1101C5	C	BA3001F2	C
BA1011B8	C	BA1101D-AB.ADA	P	BA3001F3	C
BA1011C-B.ADA	P	BA1101E-B.ADA	P	BA3006A-B.ADA	P
BA1011COM	C	BA1101F-B.ADA	P	BA3006A0	C
BA1011C1	C	BA1101G-B.ADA	P	BA3006A1	C
BA1011C2	C	BA1101H-B.ADA	P	BA3006A2	C
BA1011C3	C	BA1101H0	C	BA3006A3	C
BA1011C4	C	BA1101H1M	C	BA3006A4	C
BA1011C5	C	BA2001A-AB.ADA	P	BA3006A5	C
BA1011C6	C	BA2001B-AB.ADA	P	BA3006A6M	C
BA1011C7	C	BA2001C-AB.ADA	P	BA3006B-B.ADA	P
BA1011C8	C	BA2001D-AB.ADA	P	BA3006B0	C
BA1020A-B.ADA	P	BA2001E-AB.ADA	W	BA3006B1	C
BA1020AOM	C	BA2001EOM	W	BA3006B2	C
BA1020A1	C	BA2001E1	W	BA3006B3	C
BA1020A2	C	BA2001E	W	BA3006B4M	C
BA1020A3	C	BA2001F-AB.ADA	P	BA3007A-B.ADA	P
BA1020A4	C	BA2001FOM	C	BA3007A0	C
BA1020A5	C	BA2001F1	C	BA3007A1	C
BA1020A6	C	BA2001F2	C	BA3007A2	C
BA1020A7	C	BA2001G-AB.ADA	P	BA3007A3	C
BA1020A8	C	BA2001GOM	C	BA3007A4	C
BA1020B-B.ADA	P	BA2001G1	C	BA3007A5M	C
BA1020B0	C	BA2003B-AB.ADA	P	BA3007B-B.ADA	P
BA1020B1	C	BA2003BOM	C	BA3007B0	C
BA1020B2	C	BA2003B1	C	BA3007B1	C
BA1020B3	C	BA2013A-B.ADA	P	BA3007B2	C
BA1020B4	C	BA2013B-B.ADA	P	BA3007B3	C
BA1020B5	C	BA3001A-AB.ADA	P	BA3007B4	C
BA1020B6M	C	BA3001AOM	C	BA3007B5	C
BA1020C-B.ADA	P	BA3001A1	C	BA3007B6	C
BA1020COM	C	BA3001A2	C	BA3007B7	C
BA1020C1	C	BA3001A3	C	BA3007B8M	C
BA1020C2	C	BA3001B.ADA	P	BA3008A-B.ADA	P
BA1020C3	C	BA3001BOM	C	BA3008A0	C
BA1020C4	C	BA3001B1	C	BA3008A1	C
BA1020C5	C	BA3001C-AB.ADA	P	BA3008A2	C
BA1101A-AB.ADA	P	BA3001COM	C	BA3008A3	C
BA1101B-B.ADA	P	BA3001C1	C	BA3008A4	C
BA1101BOM	C	BA3001D-AB.ADA	P	BA3008A5M	C
BA1101B1	C	BA3001DOM	C	BA3008B-B.ADA	P
BA1101B2	C	BA3001D1	C	BA3008B0	C

# COMPLETE LIST OF TESTS AND RESULTS

BA3008B1	C	CA1011A6M	W	CA1108A-B.ADA	W
BA3008B2	C	CA1012A-B.DEP	N/A	CA1108B-B.ADA	W
BA3008B3	C	CA1012A0	C	CA2001H-B.ADA	P
BA3008B4	C	CA1012A1	C	CA2001H0	C
BA3008B5	C	CA1012A2	C	CA2001H1	C
BA3008B6M	C	CA1012A3	C	CA2001H2	C
BA3013A-B.ADA	P	CA1012A4M	C	CA2001H3M	C
BA3013A0	C	CA1012B-B.ADA	P	CA2002A-B.ADA	P
BA3013A1	C	CA1012B0	C	CA2002A0M	C
BA3013A2	C	CA1012B2	C	CA2002A1	C
BA3013A3	C	CA1012B4M	C	CA2002A2	C
BA3013A4	C	CA1013A-B.ADA	P	CA2003A-AB.ADA	P
BA3013A5	C	CA1013A0	C	CA2003A0M	C
BA3013A6	C	CA1013A1	C	CA2003A1	C
BA3013A7M	C	CA1013A2	C	CA2004A-AB.ADA	P
CA1002A-B.ADA	P	CA1013A3	C	CA2004A0M	C
CA1002A0	C	CA1013A4	C	CA2004A1	C
CA1002A1	C	CA1013A5	C	CA2004A2	C
CA1002A2	C	CA1013A6M	C	CA2004A3	C
CA1002A3M	C	CA1014A-AB.ADA	P	CA2004A4	C
CA1002A4	C	CA1014A0M	C	CA2007A-AB.ADA	P
CA1002A5	C	CA1014A1	C	CA2007A0M	C
CA1002A6	C	CA1014A2	C	CA2007A1	C
CA1002A7	C	CA1014A3	C	CA2007A2	C
CA1002A8	C	CA1022A-B.ADA	P	CA2007A3	C
CA1002A9	C	CA1022A0	C	CA2008A-B.ADA	P
CA1003A-AB.ADA	P	CA1022A1	C	CA2008A0M	C
CA1003B-AB.ADA	W	CA1022A2	C	CA2008A1	C
CA1004A-AB.ADA	P	CA1022A3	C	CA2008A2	C
CA1005A-AB.ADA	P	CA1022A4	C	CA2009A-B.DEP	P
CA1006A-AB.ADA	P	CA1022A5	C	CA2009B-B.DEP	W
CA1007A-AB.ADA	P	CA1022A6M	C	CA2009C-B.DEP	N/A
CA1007A0	C	CA1102A-B.ADA	P	CA2009COM	C
CA1007A1M	C	CA1102A0	C	CA2009C1	C
CA1008A-AB.ADA	P	CA1102A1	C	CA2009D-B.DEP	A
CA1008A0	C	CA1102A2M	C	CA2009E-B.DEP	W
CA1008A1M	C	CA1105A-B.ADA	P	CA2009F-B.DEP	W
CA1009A-AB.ADA	P	CA1105A0	C	CA2009F0M	W
CA1009A0	C	CA1105A1M	C	CA2009F1	W
CA1009A1	C	CA1105B-B.ADA	P	CA3002A-B.ADA	P
CA1009A2	C	CA1105B0	C	CA3002A0	C
CA1009A3	C	CA1105B1	C	CA3002A1	C
CA1009A4M	C	CA1105B2	C	CA3002A2M	C
CA1011A-B.ADA	W	CA1105B3M	C	CA3002A3	C
CA1011A0	W	CA1105B4	C	CA3006C-B.ADA	P
CA1011A1	W	CA1105B5	C	CA3006C0	C
CA1011A2	W	CA1107A.ADA	P	CA3006C1	C
CA1011A3	W	CA1107A0	C	CA3006C2	C
CA1011A4	W	CA1107A1M	C	CA3006C3	C
CA1011A5	W	CA1107A2	C	CA3006C4	C

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CA3006C5M	C	CA5002B6	C	LA3004A2	C
CA3006D-B.ADA	P	CA5002B7M	C	LA3004A3	C
CA3006D0	C	CA5003A-B.ADA	P	LA3004A4	C
CA3006D1	C	CA5003A0	C	LA3004A5	C
CA3006D2	C	CA5003A1	C	LA3004A6M	C
CA3006D3M	C	CA5003A2	C	LA3004B-B.ADA	N/A
CA3006E-B.ADA	P	CA5003A3	C	LA3004B0	C
CA3006E0	C	CA5003A4	C	LA3004B1	C
CA3006E1	C	CA5003A5	C	LA3004B2	C
CA3006E2	C	CA5003A6M	C	LA3004B3	C
CA3006E3	C	CA5003B-B.ADA	P	LA3004B4	C
CA3006E4	C	CA5003B0	C	LA3004B5	C
CA3006E5	C	CA5003B1	C	LA3004B6M	C
CA3006E6M	C	CA5003B2	C	LA5001A-B.ADA	P
CA5002A-B.ADA	P	CA5003B3	C	LA5001A0	C
CA5002B-B.ADA	P	CA5003B4	C	LA5001A1	C
CA5002B0	C	CA5003B5M	C	LA5001A2	C
CA5002B1	C	CA5004A-B.ADA	P	LA5001A3	C
CA5002B2	C	CA5004B-B.ADA	P	LA5001A4	C
CA5002B3	C	LA3004A-AB.ADA	N/A	LA5001A5	C
CA5002B4	C	LA3004A0	C	LA5001A6	C
CA5002B5	C	LA3004A1	C	LA5001A7M	C

# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 11

BB2001A-AB.ADA	P	CB1003A-AB.ADA	P	CB4003A-AB.ADA	P
BB2002A-AB.ADA	P	CB1004A-AB.ADA	P	CB4004A-B.ADA	P
BB2003A-AB.ADA	P	CB2004A-B.ADA	P	CB4005A-AB.ADA	P
BB2003B-AB.ADA	P	CB2005A-B.ADA	P	CB4006A-B.ADA	P
BB2003C-AB.ADA	P	CB2006A-AB.ADA	P	CB4008A-AB.ADA	P
BB3001A-B.ADA	P	CB2007A-AB.ADA	P	CB4009A-AB.ADA	P
BB3002A-AB.ADA	P	CB3003A-B.ADA	P	CB5001A-B.ADA	P
BB3005A-AB.ADA	P	CB3004A-AB.ADA	P	CB5001B-B.ADA	P
CB1001A-B.ADA	P	CB4001A-AB.ADA	P		
CB1002A-B.ADA	P	CB4002A-AB.ADA	P		

# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 12

BC1001A-B.ADA	P	BC2001B-AB.ADA	P	BC3205D1M	W
BC1002A-B.ADA	P	BC2001C-AB.ADA	P	BC3205D2	W
BC1008A-AB.ADA	P	BC20ABA-B.ADA	P	BC3205E-B.ADA	P
BC1008B-AB.ADA	P	BC3002A-AB.ADA	P	BC3205F-B.ADA	P
BC1008C-AB.ADA	P	BC3002B-AB.ADA	P	BC3220B-B.ADA	W
BC1009A-AB.ADA	P	BC3002C-AB.ADA	P	BC32ABA-B.ADA	P
BC1011A-AB.ADA	P	BC3002D-AB.ADA	P	BC32ADA-B.ADA	P
BC1011B-AB.ADA	P	BC3002E-AB.ADA	P	BC3301A-AB.ADA	P
BC1012A-AB.ADA	P	BC3003A-AB.ADA	P	BC3301B-AB.ADA	P
BC1013A-B.ADA	W	BC3003B-AB.ADA	P	BC3302A-AB.ADA	P
BC10ABA-B.ADA	P	BC3005A-AB.ADA	P	BC3302B-AB.ADA	P
BC10ABB-B.ADA	P	BC3006A-AB.ADA	P	BC3303A-AB.ADA	P
BC10ACA-B.ADA	P	BC3009A-B.ADA	P	BC3304A-AB.ADA	P
BC10ADA-B.ADA	P	BC3009B-B.ADA	P	BC33ABA-B.ADA	P
BC10AEA-B.ADA	P	BC3009C-B.ADA	P	BC33ACA-B.ADA	P
BC10AEB-B.ADA	P	BC3011B-B.ADA	P	BC33ADA-B.ADA	P
BC10AEC-B.ADA	P	BC3011C-AB.ADA	P	BC33AEA-B.ADA	P
BC10AED-B.ADA	P	BC3013A-AB.ADA	P	BC3401A-AB.ADA	P
BC10AFA-B.ADA	P	BC3018A-B.ADA	P	BC3401B-AB.ADA	P
BC10AGA-B.ADA	P	BC30ABA-B.ADA	P	BC3402A-AB.ADA	P
BC1101A-AB.ADA	P	BC30ACA-B.ADA	P	BC3402B-AB.ADA	P
BC1102A-B.ADA	P	BC3101A-B.ADA	P	BC3403A-AB.ADA	P
BC1103A-B.ADA	P	BC3101B-B.ADA	P	BC3403B-AB.ADA	P
BC1104A-B.ADA	P	BC3102A-B.ADA	P	BC3403C-AB.ADA	P
BC1104B-B.ADA	P	BC3102B-B.ADA	P	BC3404A-AB.ADA	P
BC1106A-AB.ADA	P	BC3103A-AB.ADA	P	BC3404B-B.ADA	P
BC1107A-B.ADA	P	BC3103B-AB.ADA	P	BC3404C-AB.ADA	P
BC11ABA-B.ADA	P	BC31ABA-B.ADA	P	BC3404D-AB.ADA	P
BC11ACA-B.ADA	P	BC31ACA-B.ADA	P	BC3404E-AB.ADA	P
BC1201A-AB.ADA	P	BC31ADA-B.ADA	P	BC3404F-AB.ADA	P
BC1201B-AB.ADA	P	BC3201A-B.ADA	P	BC3405A-AB.ADA	P
BC1201C-AB.ADA	P	BC3201B-AB.ADA	P	BC3405B-B.ADA	W
BC1201D-AB.ADA	P	BC3201C-B.ADA	P	BC3405D-AB.ADA	P
BC1202A-AB.ADA	P	BC3202A-B.ADA	P	BC3405E-AB.ADA	P
BC1202B-AB.ADA	P	BC3202B-B.ADA	P	BC3405F-AB.ADA	P
BC1202C-AB.ADA	P	BC3202C-B.ADA	P	BC3501A-AB.ADA	P
BC1202D-AB.ADA	P	BC3203B-B.ADA	P	BC3501B-AB.ADA	P
BC1203A-AB.ADA	P	BC3204A-B.ADA	W	BC3501C-AB.ADA	P
BC1207A-B.ADA	P	BC3204B-B.ADA	W	BC3501D-AB.ADA	P
BC1226A-B.ADA	P	BC3204C-B.ADA	W	BC3501E-AB.ADA	P
BC12ABA-B.ADA	P	BC3204C0	W	BC3501F-AB.ADA	P
BC12ACA-B.ADA	P	BC3204C1M	W	BC3501G-AB.ADA	P
BC12ACB-B.ADA	P	BC3204C2	W	BC3501H-AB.ADA	P
BC1303A-AB.ADA	P	BC3204D-B.ADA	W	BC3501I-AB.ADA	P
BC1303B-AB.ADA	P	BC3204E-B.ADA	P	BC3501J-AB.ADA	P
BC1303C-AB.ADA	P	BC3205A-B.ADA	W	BC3501K-AB.ADA	P
BC1303D-AB.ADA	P	BC3205B-B.ADA	W	BC3502A-AB.ADA	P
BC1303E-AB.ADA	P	BC3205C-B.ADA	W	BC3502B-AB.ADA	P
BC1306A-B.ADA	P	BC3205D-B.ADA	W	BC3502C-AB.ADA	P
BC13ABA-B.ADA	P	BC3205D0	W	BC3502D-AB.ADA	P

# COMPLETE LIST OF TESTS AND RESULTS

BC3502E-AB.ADA	P	CC1305B-AB.ADA	P	CC3407A-AB.ADA	P
BC3502F-AB.ADA	P	CC1307A-AB.ADA	P	CC3407B-AB.ADA	P
BC3502G-AB.ADA	P	CC1308A-AB.ADA	P	CC3407C-AB.ADA	P
BC3502H-AB.ADA	P	CC1310A-AB.ADA	P	CC3407D-AB.ADA	P
BC3502I-AB.ADA	P	CC2002A-AB.ADA	P	CC3407E-AB.ADA	P
BC3502J-AB.ADA	P	CC3004A-B.ADA	P	CC3407F-AB.ADA	P
BC3502K-AB.ADA	P	CC3007A-AB.ADA	P	CC3408A-AB.ADA	P
BC3502L-AB.ADA	P	CC3011A-B.ADA	P	CC3408B-AB.ADA	P
BC3502M-AB.ADA	P	CC3011D-B.ADA	P	CC3408C-AB.ADA	P
BC3502N-AB.ADA	P	CC3012A-AB.ADA	P	CC3408D-B.ADA	P
BC3502O-AB.ADA	P	CC3120A-AB.ADA	P	CC3504A-B.ADA	P
BC3503A-B.ADA	W	CC3120B-B.ADA	P	CC3504B-B.ADA	P
BC3503B-B.ADA	P	CC3125A-B.ADA	P	CC3504C-B.ADA	P
BC3503C-B.ADA	P	CC3203A-B.ADA	P	CC3504D-B.ADA	P
BC3503D-B.ADA	P	CC3208A-AB.ADA	P	CC3504E-B.ADA	P
BC3503F-B.ADA	P	CC3208B-AB.ADA	P	CC3504F-B.ADA	P
CC1004A-AB.ADA	P	CC3305A-AB.ADA	P	CC3504G-B.ADA	P
CC1010A-AB.ADA	P	CC3305B-AB.ADA	P	CC3504H-B.ADA	P
CC1010B-AB.ADA	P	CC3305C-AB.ADA	P	CC3504I-B.ADA	P
CC1204A-B.ADA	P	CC3305D-AB.ADA	P	CC3504J-B.ADA	P
CC1220A-B.ADA	P	CC3406A-AB.ADA	P	CC3504K-B.ADA	P
CC1301A-B.ADA	P	CC3406B-AB.ADA	P	CC3601C-AB.ADA	P
CC1302A-AB.ADA	P	CC3406C-AB.ADA	P	CC3602A-AB.ADA	P
CC1304A-AB.ADA	P	CC3406D-B.ADA	P		

# COMPLETE LIST OF TESTS AND RESULTS

## Chapter 14

AE2101A-B.ADA	P	CE2111A-B.ADA	P	CE3115A-B.ADA	N/A
AE2101B-B.ADA	P	CE2111B-B.ADA	P	CE3201A-B.ADA	P
AE2101C-B.DEP	N/A	CE2111C-B.ADA	P	CE3202A-B.ADA	P
AE2101D-B.ADA	P	CE2111D-B.ADA	N/A	CE3203A-B.ADA	P
AE3101A-B.ADA	P	CE2201A-B.ADA	P	CE3206A-B.ADA	P
AE3702A-B.ADA	P	CE2201B-B.ADA	P	CE3208A-B.ADA	P
AE3709A-B.ADA	P	CE2201C-B.ADA	P	CE3301A-B.ADA	P
BE2101E-B.ADA	P	CE2201D-B.DEP	N/A	CE3301B-B.ADA	P
BE2112A-B.ADA	P	CE2201E-B.DEP	N/A	CE3301C-B.ADA	P
BE2112B-B.ADA	P	CE2201F-B.ADA	P	CE3302A-B.ADA	P
BE2112C-B.ADA	P	CE2202A-B.ADA	P	CE3303A-B.ADA	P
BE2114A-B.ADA	P	CE2204A-B.ADA	P	CE3305A-B.ADA	P
BE2208A-B.ADA	P	CE2204B-B.ADA	P	CE3402A-B.ADA	P
BE3001A-B.ADA	P	CE2210A-B.ADA	P	CE3402B-B.ADA	P
BE3002A-B.ADA	P	CE2401A-B.ADA	P	CE3402C-B.ADA	P
BE3002E-B.ADA	P	CE2401B-B.ADA	P	CE3402D-B.ADA	P
BE3105A-B.ADA	P	CE2401C-B.ADA	P	CE3402E-B.ADA	P
BE3205A-B.ADA	P	CE2401D-B.DEP	N/A	CE3403A-B.ADA	P
BE3501A-B.ADA	P	CE2401E-B.ADA	P	CE3403B-B.ADA	P
BE3606C-B.ADA	P	CE2401F-B.ADA	P	CE3403C-B.ADA	P
BE3703A-B.ADA	P	CE2402A-B.ADA	P	CE3403D-B.ADA	P
BE3802A-B.ADA	P	CE2404A-B.ADA	P	CE3403E-B.ADA	P
BE3803A-B.ADA	P	CE2405B-B.ADA	P	CE3403F-B.ADA	P
BE3902A-B.ADA	P	CE2406A-B.ADA	P	CE3404A-B.ADA	P
BE3903A-B.ADA	P	CE2407A-B.ADA	P	CE3404B-B.ADA	P
CE2102A-B.ADA	P	CE2408A-B.ADA	P	CE3404C-B.ADA	P
CE2102B-B.ADA	P	CE2409A-B.ADA	P	CE3405A-B.ADA	P
CE2102C-B.TST	P	CE2410A-B.ADA	P	CE3405B-B.ADA	P
CE2102D-B.ADA	P	CE3002B-B.TST	P	CE3405C-B.ADA	P
CE2102E-B.ADA	P	CE3002C-B.TST	P	CE3405D-B.ADA	P
CE2102F-B.ADA	P	CE3002D-B.ADA	P	CE3406A-B.ADA	P
CE2102G-B.ADA	P	CE3002F-B.ADA	P	CE3406B-B.ADA	P
CE2103A-B.TST	P	CE3102A-B.ADA	P	CE3406C-B.ADA	P
CE2103B-B.TS1	P	CE3102B-B.TST	P	CE3406D-B.ADA	P
CE2104A-B.ADA	P	CE3103A-B.ADA	P	CE3407A-B.ADA	P
CE2104B-B.ADA	P	CE3104A-B.ADA	P	CE3407B-B.ADA	P
CE2105A-B.ADA	P	CE3107A-B.TST	P	CE3407C-B.ADA	P
CE2106A-B.ADA	P	CE3108A-B.ADA	P	CE3408A-B.ADA	P
CE2107A-B.ADA	N/A	CE3108B-B.ADA	P	CE3408B-B.ADA	P
CE2107B-B.ADA	N/A	CE3109A-B.ADA	P	CE3408C-B.ADA	P
CE2107C-B.ADA	N/A	CE3110A-B.ADA	P	CE3409A-B.ADA	P
CE2107D-B.ADA	N/A	CE3111A-B.ADA	N/A	CE3409B-B.ADA	P
CE2107E-B.ADA	W	CE3111B-B.ADA	N/A	CE3409C-B.ADA	P
CE2108A-B.ADA	P	CE3111C-B.ADA	N/A	CE3409D-B.ADA	P
CE2108B-B.ADA	P	CE3111D-B.ADA	N/A	CE3409E-B.ADA	P
CE2108C-B.ADA	P	CE3111E-B.ADA	N/A	CE3409F-B.ADA	P
CE2108D-B.ADA	P	CE3112A-B.ADA	P	CE3410A-B.ADA	P
CE2109A-B.ADA	P	CE3112B-B.ADA	P	CE3410B-B.ADA	P
CE2110A-B.ADA	P	CE3114A-B.ADA	P	CE3410C-B.ADA	P
CE2110B-B.ADA	N/A	CE3114B-B.ADA	N/A	CE3410D-B.ADA	P

# COMPLETE LIST OF TESTS AND RESULTS

CE3410E-B.ADA	P	CE3704B-B.ADA	P	CE3804M-B.ADA	P
CE3410F-B.ADA	P	CE3704C-B.ADA	P	CE3805A-B.ADA	P
CE3411A-B.ADA	P	CE3704D-B.ADA	P	CE3805B-B.ADA	P
CE3411C-B.ADA	P	CE3704E-B.ADA	P	CE3806A-B.ADA	P
CE3412A-B.ADA	P	CE3704F-B.ADA	P	CE3806C-B.ADA	P
CE3412C-B.ADA	P	CE3704M-B.ADA	W	CE3806D-B.ADA	P
CE3413A-B.ADA	P	CE3704N-B.ADA	P	CE3806E-B.ADA	P
CE3413C-B.ADA	P	CE3704O-B.ADA	P	CE3809A-B.ADA	P
CE3601A-B.ADA	P	CE3706C-B.ADA	P	CE3809B-B.ADA	P
CE3602A-B.ADA	P	CE3706D-B.ADA	P	CE3810A-B.ADA	P
CE3602B-B.ADA	P	CE3706F-B.ADA	P	CE3901A-B.ADA	P
CE3602C-B.ADA	P	CE3706G-B.ADA	P	CE3905A-B.ADA	P
CE3602D-B.ADA	P	CE3707A-B.ADA	P	CE3905B-B.ADA	P
CE3603A-B.ADA	W	CE3708A-B.ADA	P	CE3905C-B.ADA	P
CE3604A-B.ADA	W	CE3801A-B.ADA	P	CE3905L-B.ADA	P
CE3605A-B.ADA	N/A	CE3804A-B.ADA	P	CE3906A-B.ADA	P
CE3605B-B.ADA	P	CE3804B-B.ADA	P	CE3906B-B.ADA	P
CE3605C-B.ADA	P	CE3804C-B.ADA	P	CE3906C-B.ADA	P
CE3605D-B.ADA	P	CE3804D-B.ADA	P	CE3906D-B.ADA	P
CE3605E-B.ADA	P	CE3804E-B.ADA	P	CE3906E-B.ADA	P
CE3606A-B.ADA	P	CE3804F-B.ADA	P	CE3906F-B.ADA	P
CE3606B-B.ADA	P	CE3804G-B.ADA	P	CE3907A-B.ADA	P
CE3701A-B.ADA	P	CE3804I-B.ADA	P	CE3908A-B.ADA	P
CE3704A-B.ADA	P	CE3804K-B.ADA	P	EE3102C-B.ADA	P



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